

PHOTOGRAPHY'S PART IN THE WAR (Illustrated).
PRACTICAL TEACHING FOR THE CHILDREN OF FARMERS.

COUNTRY LIFE

OFFICES:
20, TAVISTOCK STREET, STRAND, LONDON, W.C. 2.

VOL. XLII. No. 1078.
Entered as Second-class Matter at the
New York, N.Y. Post Office.

[REGISTERED AT THE G.P.O.
AS A NEWSPAPER, AND FOR
CANADIAN MAGAZINE POST.]

SATURDAY, SEPTEMBER 1st, 1917.

Published Weekly. PRICE EIGHTPENCE.
Subscription Price, per annum, post free.
Inland and Canadian, 42s. 8d. Foreign 56s. 8d.

SEP 20 1917
UNIV. OF MICH.
LIBRARY

DINNEFORD'S MAGNESIA.

For nearly a Century

the Medical Profession have approved this as the best and safest remedy for Acidity of the Stomach, Heartburn, Headache, Gout and Indigestion. Dinneford's Magnesia is also an aperient of unequalled value for infants, children, those of delicate constitution, and for the distressing sickness of pending motherhood.

**THE MOST EFFECTIVE APERIENT FOR
REGULAR USE BY PEOPLE OF ALL AGES.**

In consequence of numerous imitations, purchasers should INSIST on seeing the name "DINNEFORD'S" on every bottle. Only by so doing can they be sure of obtaining this most excellent remedy.

Dinneford's Magnesia mixed with Spring Water forms a pleasant, cooling and most beneficial drink in Hot Seasons and Climates, and also during Fever.

Autumn and Winter Residence in Town.

Before Opening a House, view the
FAMILY SUITES
OF THE

CONNAUGHT
(late Coburg) HOTEL
MAYFAIR, W.

Unique situation. Between BERKELEY and GROSVENOR SQUARES.
An Up-to-date Hotel with the atmosphere of a Gentleman's Mansion. Hotel Life these times saves money and worry.

BY SPECIAL APPOINTMENT



TO H.M. THE KING.

WHITELEY'S HOUSE DECORATIONS

Heating
Lighting



Sanitation
General Repairs

Advice and Estimates Gratis.

Telephone: Park, One. Wm. Whiteley Ltd., Queen's Road, London, W. Telegrams: "Whiteley, London."

BRAND'S ESSENCE

OF BEEF, CHICKEN OR MUTTON,
FROM FINEST BRITISH MEATS.

For the Wounded & Convalescent.

BRAND & CO., Ltd., Mayfair Works, VAUXHALL, LONDON.

INDIAN TEAK PARQUET FLOORS

HOWARD'S MAKE.

Large Stocks laid in before War
can now be laid at less cost
than best carpets.

26 Berners Street, W.1.
AND CLEVELAND WORKS, W.1.

WHITELEYS REMOVALS & WAREHOUSING

All Removals are carried out by men of long experience, and Whiteley's Depository at West Kensington is the most perfect building of its kind in the world. And Whiteley's service is prompt, reliable and strictly reasonable in price.

ESTIMATES FREE

Wm. Whiteley Ltd., Queen's Road, W

AVON TYRES

"Come the rough edges of the earth
and Avon Tyres withstand 'em."

THE AVON INDIA RUBBER CO., LTD.
19, Newman Street, Oxford Street, London, W.1.
Works: Melksham and Bradford-on-Avon, Wilts.

EDUCATIONAL.

RHOS-ON-SEA PREPARATORY SCHOOL

COLWYN BAY. - N. WALES.

HEAD MASTER - J. H. GLOVER, M.A. (Canthab.)

The School is situated on the Coast between COLWYN BAY & LLANDUDNO (L.N.W.R. MAIN LINE, EUSTON & HOLYHEAD). The PREMISES are modern & were specially designed & equipped for a PREPARATORY SCHOOL.

They stand in their own grounds, six ACRES in extent, providing most healthy playing fields open to Sea & Mountain Air.

Rhos-on-Sea Possesses an ideal climate for a School, Mild in Winter & Bracing in Summer.

About 45 boys (8 to 14) are taken & specially prepared for the Public Schools or the Royal Naval College.

PROSPECTUS ON APPLICATION.

THE WOMEN'S LEGION.

President: THE MARCHIONESS OF LONDONDERRY.

AGRICULTURAL COMPETITIONS

will be held at Oakham, Rutland on the 27th Sept., 1917, and the following Competitions will be open to Women Workers throughout the United Kingdom: MILKING, BUTTER-MAKING, PLOUGHING, HEDGE-TRIMMING, PITCHING & LOADING, RIDING and DRIVING.

Prizes amounting to £20 in each section will be offered.

There will be no entrance fees. Entries will only be received from 1st to 14th September. For Schedule and all further particulars, apply to the Hon. Secretary, G. E. GIBSON, 36, High Street, Oakham.

ARE YOU IN DOUBT as to your Child's FUTURE? If so, consult the

FUTURE CAREER

ASSOCIATION.

63, Victoria Street, London, S.W. Established 1904. A CENTRAL INTELLIGENCE BUREAU DEALING WITH ALL EDUCATIONAL MATTERS AND TRAINING AFFECTING FUTURE CAREERS. RECOMMENDED BY THE LEADING HEAD-MASTERS.—ADDRESS THE SECRETARY.

WAR SERVICE FOR WOMEN

WANTED, strong, capable, educated WOMEN to train for FARM WORK, to take the place of men who are doing War Work.—Apply Organizer.

WOMEN'S FARM & GARDEN UNION, 50, Upper Baker Street, London, N.W. 1.

THE WOMEN'S LEGION TRAINING CENTRE

at the Cottessmore Hunt Kennels, Oakham, take students for a course of four weeks, or longer if desired, in Agricultural and Horticultural Training; fee £1 a week inclusive. Also a limited number of "loan trainings," fee payable in instalments when in situation. For full particulars apply Miss BROCKLEBANK, Commandant, Wing Grange, Oakham.

WEST END RIDING SCHOOL,

70, SEYMOUR PLACE, BRYANSTON SQUARE, W.

BY ROYAL WARRANT

OF APPOINTMENT TO



HIS MAJESTY KING GEORGE V.

THE ONLY ESTABLISHMENT WHERE ROYALTY HAS BEEN TAUGHT.

Hacks and Chargers let by the hour or for any period. Several Riding Horses always on Sale.

THE School, which is lighted by Electricity, is the largest and most select in London, and is decorated throughout with attractive "Garden" and "Country" scenery from a recent Horse Show at Olympia. The INDOOR tuition has thereby been rendered as nearly equal to actual OUTDOOR Riding as possible.



Telegrams: "Equiseta, London." Telephone: 4129 Paddington. Proprietor: Mr. F. G. HAINES.

ST. EDITH'S SCHOOL,

BRACKLEY, NORTHANTS.

TO BE OPENED IN SEPTEMBER.

A Woodard School for Girls.

Fees: 150 guineas a year.

Headmistress: MISS E. R. PEARSON, M.A. (Late of St. Leonard's School, St. Andrews).



THE House is a magnificent mansion situated on high table land 400 feet above sea level, and is ideally convenient for the purposes of a Girls' School. There are eleven acres of gardens and playing fields.

While aiming at a thorough general education, it is intended to pay special attention to languages, music and art.

Enquiries should be directed to Miss PEARSON, St. Edith's School, The Manor House, Brackley, Northants.

EASTBOURNE.

SCHOOL OF COOKERY

and Domestic Economy, 11, Silverdale Rd.

DAY AND RESIDENT PUPILS.

Cookery in all branches, Laundry, House-wifery, Dressmaking, Millinery, Home Sick Nursing and Hygiene.

Certificates granted.

Apply Principal, Miss RANDALL, 1st class Diplomee, Edinburgh Training School

MISCELLANEOUS ANNOUNCEMENTS.

Replies to Advertisements containing Box Nos. should be addressed c/o COUNTRY LIFE Office, 20, Tavistock Street, Covent Garden, W.C. 2.

GARDEN AND FARM.

The Charge for these Advertisements is 1d. per word, minimum 2/-.

VISITING AND CONSULTING LADY GARDENER.—Mrs. SAVILL, Chobham, Woking, Surrey, is now arranging to pay monthly visits where advice is urgently needed owing to head gardeners being called up and only unskilled labour is available. Terms on application.

MOTOR PLOUGHING, CULTIVATING AND PLANTING done expeditiously at per acre, by Contractors to H.M. Office of Works.—For terms apply ROBERTS BROS., Eastwick Park Farm, Great Bookham, Surrey.

GARDENING FOR WOMEN.—Essentially practical training: vegetable, fruit, and flower culture. Healthy outdoor life. Individual consideration. Long or short courses. From 60 guineas per annum. Gardening year begins Sept. 21st. Illustrated prospectus of PEAKE, "Udimore," near Rye, Sussex.

PAYING QUESTS, APARTMENTS, ETC

The Charge for these Advertisements is 2d. per word, minimum 2/6.

INLAND RESORT.—Mid Wales, Plynlimon.—Fishing, shooting, hounds, golf, pony and governess car, donkey tandem, piano. Bracing and perfect air. Sheltered by thirteen-acre pine plantation. Motor accommodation. Town one-and-a-half miles. Or let, furnished, with or without Cook-Caretaker.—ROBERT LEWIS, Ethnog Farm, Llanidloes, Montgomery (late Central Co., Kimberley, S.A.).

GENERAL

ANNOUNCEMENTS.

The Charge for these Advertisements is 2d. per word, minimum 2/6.

IRON FENCING for all purposes.—Continuous Bar Fencing, Strained Wire Fencing, Gates, Field Hardies, Tree Guards, Espaliers, Railings, Sheep Fold Hurdles, Garden Fencing and Ironwork of all kinds. List on application. Estimates free. We also have a small surplus stock of Kennel Runs for disposal at special prices; subject to being unsold. Particulars on application.—BOULTON and PAUL, LTD., Norwich.

BUTTER COOLERS.—A Cooler to hold two 4 lbs. of butter sent carriage paid for 4/6, four 4 lbs. for 7/6; it is both economical, clean and reliable.—C. H. BRANNAM, LTD., Barnstaple.

SEWAGE DISPOSAL FOR COUNTRY HOUSES.—No emptying of cesspools; no solids; no open filters; perfectly automatic; everything underground. State particulars.—WILLIAM BRATTIE, 8, Lower Grosvenor Place, Westminster.

PORTABLE BUILDINGS. Bungalows, Recreation Rooms, Motor Houses, Outdoor Shelters, etc. Enquiries invited.—FENN & CO., Ipswich.

AMATEUR PHOTOGRAPHERS.—Developing or Printing.—THE BEST POSSIBLE got out of every negative and every print every time; no waiting. Any size, 1/- for 12 exposures, 6d. for 6. Prints or postcards, 1d. (Cameras bought or exchanged).—MARTIN, Photographers' Chemist, Southampton.

FENCING.—Cleft Chestnut Unclimbable Fencing. Send for illustrated price list.—THE STANLEY UNDERWOOD CO., LTD., Shottermill, Haslemere, Surrey.

GENERAL

ANNOUNCEMENTS

MOTOR KITCHEN FOR SALE.—completely fitted—30/40 h.p., in good running condition; used by owner, now with H.M. Forces, in connection with Ambulance Column, London District.—Apply HIGGS and HILL, LIMITED, Crown Works, South Lambeth Road.

FINANCIAL ASSISTANCE WANTED by Practical Farmer and Agricultural Expert. Advertiser farms 300 acres and is anxious not only to increase Stock but to adopt Motor ploughing, etc., and by modern methods generally to increase the Farm's output. Advertiser requires financial assistance permanently, and is prepared to give security and adequate interest for same.—"P 6918."

WANTED.—Finest quality Spalding Gold Medal lawn tennis racket, 13/4 or 14oz.; must be in new condition; good price given.—"P 6921."

ABSOLUTE CURE FOR CONSTIPATION.—Dr. Jenner's Remedy.—Particulars and free samples from JONES, Chemist, 247, Bournemouth.

CARRIAGES FOR SALE AND WANTED.

The Charge for these Advertisements is 2d. per word, minimum 2/6.

RALLI CART FOR SALE. in thoroughly good condition and suitable for 13.2 to 14.2 pony. Can be seen at Streatham, S.W.—"P 6915."

STAMPS.

The Charge for these Advertisements is 2d. per word, minimum 2/6.

COLLECTION Early Colonial Stamps, superb copies only, for Sale, intact; or you can select at one-third to quarter dealer's prices; approval.—"G." 31, Ellerbys Street, Fulham.

BOOKS, WORKS OF ART, ETC.

The Charge for these Advertisements is 2d. per word, minimum 2/6.

WANTED. Vols. 1 and 2 of "Shooting," by Horace Hutchinson ("Country Life Library of Sport").—"P 6916."

WANTED. issues of COUNTRY LIFE dated April 25th, 1908, and June 18th, 1904.—"P 6921."

WANTED. Vols. II. and III. COUNTRY LIFE, containing issues dated July 10th, 1897, to Jan. 1st, 1898, and Jan. 8th to July 2nd, 1898, or the loose copies numbered 27 to 78 inclusive.—"P 6924."

"FISHING" (2 Vols., each 12/6 net), edited by HORACE G. HUTCHINSON, contains coloured plates of salmon and trout flies, and over 250 full-page illustrations besides numerous diagrams. The Fishing Gazette says: "It would be worth buying if it were merely for the illustrations." Published at the Offices of "COUNTRY LIFE," LIMITED, 20, Tavistock Street, Covent Garden, W.C. 1. Write for a Prospectus.

MOTOR CARS, Etc., FOR SALE AND WANTED.

The Charge for these Advertisements is 2d. per word, minimum 2/6.

10 TO 15-H.P. VULCAN (1914) for SALE; 5-seater; has run under 5,000 miles. Electric lighting; excellent condition. Price £300.—"P 6920."

DOGS FOR SALE AND WANTED.

The Charge for these Advertisements is 2d. per word, minimum 2/6.

PEKINGESE DOG PUPPY, famous strain, perfect points, make winner, £10 10s.; also others.—PACZENSKY, Abber-ton, Colchester.

COUNTRY LIFE

VOL. XLII.—No. 1078.

SATURDAY, SEPTEMBER 1st, 1917.

PRICE EIGHTPENCE. POSTAGE EXTRA.
[REGISTERED AT THE G.P.O. AS A NEWSPAPER]



SPEAIGHT

THE COUNTESS OF NORMANTON AND HER SON.

157, New Bond Street, W.

COUNTRY LIFE
THE JOURNAL FOR ALL INTERESTED IN
COUNTRY LIFE & COUNTRY PURSUITS
OFFICES : 20, TAVISTOCK STREET, COVENT GARDEN, W.C.

CONTENTS

	PAGE
Our Frontispiece: The Countess of Normanton	193, 194
Mr. Fisher's Education Bill. (Leader)	194
Country Notes	195
Slum Babies, by Dorothy Frances Gurney	195
For a Guest Room, by John Drinkwater	196
Photography's Part in the War, by Ward Muir. (Illustrated)	197
Practical Teaching for the Children of Farmers. (Illustrated)	201
Oat Stubbles and Roots	203
Concerning Tractor Ploughs and Ploughing, by "Ploughshare"	203
Country Home: Painswick House, by St. Clair Baddeley. (Illustrated)	204
The Flying Flowers, by Aidan Clarke	207
Durham Cathedral.—I., by A. Clutton Brock. (Illustrated)	208
Literature	212
The Coming Democracy (Hermann Fernau)	
In the Garden. (Illustrated)	213
Correspondence	215
Horses at the Front (Lieut.-Col. F. C. Stratton and "No. 5") ;	
The Greylag Goose in Salonika (J. C. Laidlay) ; Winter	
Food for Water Birds (M. Loder) ; Another "Mule Curiosity"	
(Captain C. Fitzgerald) ; A Remarkable Monument (David	
J. Sheppard) ; Sugarless Jam and the Sulphur Process ;	
Tomatoes Out of Doors (W. L. F. Westell) ; A Link with the Past	
(E. A. Barker) ; An Irish Invention ; Reclamation in War-time	
(C. M. Rivington) ; The "Harvest Acrobats" ; Big Brother ; Cater-	
pillar to Name (Cecil M. Archdall) ; Wanted—A Book on Birds of	
Northern Turkey ; A Deodar Hanging from a Stone (H. L. Wright).	
Racing and Breeding Notes	2*
From the Editor's Bookshelf	4*
Shooting Notes	6*
The Automobile World. (Illustrated)	8*
Modes and Moods. (Illustrated)	12*

EDITORIAL NOTICE

The charge for Small Estate Announcements is 12s. per inch per insertion, the minimum space being half an inch, approximately 48 words, for which the charge is 6s. per insertion. All advertisements must be prepaid.

.. We appeal to our readers to send their copies of recent issues of COUNTRY LIFE to the TROOPS AT THE FRONT. This can be done by simply handing them over the counter of any Post Office. No label, wrapper or address is needed and no postage need be paid.
The War Office notifies that all papers posted to any neutral European country will be stopped, except those sent by publishers and newsagents who have obtained special permission from the War Office. Such permission has been granted to COUNTRY LIFE, and subscribers who send to friends in Denmark, Holland, Norway, Sweden, Switzerland, Spain, Portugal, Greece, Rumania, neutral Countries in America, and the Dependencies of neutral European Countries in Africa should order copies to be despatched by the Publisher from 20, Tavistock Street, Covent Garden, W.C. 2.

MR. FISHER'S
EDUCATION BILL

A FORTNIGHT ago, when writing just after Mr. Fisher had introduced his Bill, instead of joining in the chorus of superficial praise with which his speech was received, we ventured to point out that he is in danger of missing such an opportunity as seldom comes twice in a lifetime. Passing the changes which he hopes to inaugurate, we argued that the State School should be made a means of forwarding the interfusion of classes. As far as our knowledge goes, all who considered the suggestion warmly approve of it, but that is not enough to secure the practical result which alone is our object.
Feeling sure that Mr. Fisher is man enough to consider on its merits a scheme put forth independently, we now return to the subject. Our major premise must be admitted by all who are alive to the perils of disintegration; they are grave enough and will be much more so after the close of the war. Many foreign thinkers, as well as the German military writers, have seen the *Mene tekell* of the British Empire written in the labour troubles that for many years past have followed one upon another in ceaseless succession.

Not even during the war has there been a cessation. Yet the war has united the Empire as nothing in history ever did before. It has brought the distant Colonies closer and brought home to all the brotherhood created by citizenship of the same Empire. Our immense Army is at once a great and orderly democracy. Its constitution is a model, at least in idea, of what the State should be, a huge organisation in which the members in the highest sense are equal, though some have to command and others to obey. But the private gives his all and risks his all just as much as the commander. With each it is the Army and not the individual which counts. Here, as elsewhere it is stupid to push a parallel too closely.

What we want to secure for the nation may be stated in very few words. First, to bring the young of all classes into closer touch so that they may better understand one another's aims in life and ways of approach to its problems. This will not be achieved by the action of one class only; and it is the business of the rich, because they are rich, to make a special effort to understand the poor. If they do that in their schooldays they will do so without that fatal air of condescension which comes in later life. The State School should give an adequate education equally to the children of rich and poor. Attendance should be compulsory upon one as upon another, although there should be no interference with those who wish their sons or daughters to specialise or extend their studies. But it should be the starting point for all. Were that so its name would lose the touch of invidiousness which was always attached in England to the institution which is always the same though the name varies from Parish School, National School and Board School to Elementary School. It is because the Education authorities have always had a class distinction in their minds that these names have carried with them a bar sinister so to speak. In a true democracy there should be no class distinction among children. Fortunately, it has not been unusual later on in life for the most humbly born to break his "birth's invidious bar." But what a phrase to be used by a poet! It goes far to show that Alfred Lord Tennyson was a bourgeois after all.

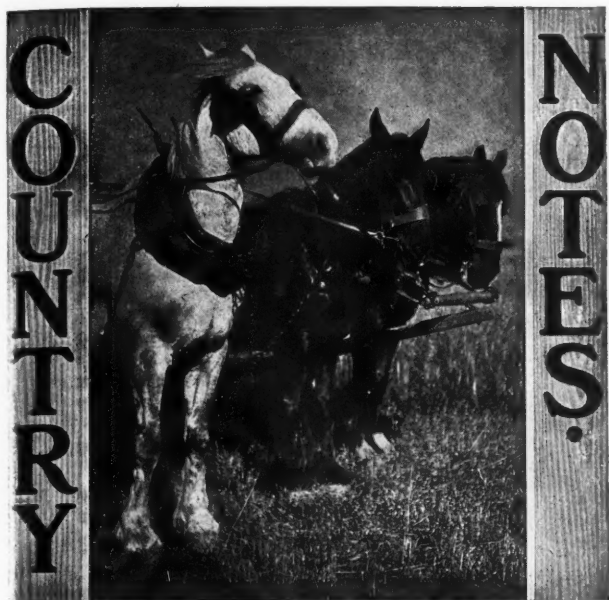
A good deal more of our social nomenclature must be scrapped as out of date. Not so very long ago a man so liberal and intelligent as Mr. Maurice Hewlett wrote an epic which depended on the assumption that there always had been a *Governing* and a *Governed* class in England, oblivious of the fact that a constant change is going on, those below climbing up and those above often tumbling down. In the same way the phrase "working classes" is a misnomer when exclusively applied to manual labourers.

The chief merit of the scheme resides in its tendency to reduce class distinctions to the minimum. Even if it were desirable (which it is not) to get rid of them altogether, it would remain impossible. But this is not thought of. The aim is only to bring the citizens of the State more closely into association so that they may both understand each other and get to see that they are individual members of the same community. A writer in last week's *Spectator* comes very near the same conclusion in writing upon what he calls "The Privilege of Education." There would be no more talk of privilege if it became established that every member of the State received the same start in education, and that start was made something more than a grounding in the elements. A raising of the general standard would be an inevitable consequence. Someone is needed to carry this thing through who is qualified by an ardent determination to make the new State School one that the pupils would be proud of. For such a measure the time is very opportune, for the Bill would be in harmony with the great democratic wave of the time. It would be education in the highest sense of the word, and it would promote a general feeling of confidence that future legislation would be according to the real wishes of the governed. England has again and again escaped revolution by just such a timely step forward.

Our Frontispiece

OUR frontispiece this week is a new portrait of the Countess of Normanton with her little son, Viscount Somerton, who was born in 1910.

.. It is particularly requested that no permissions to photograph houses, gardens or livestock on behalf of COUNTRY LIFE be granted except when direct application is made from the offices of the paper. When such requests are received, the Editor would esteem the kindness of readers if they would forward the correspondence at once to him.



ITALY has reason to be proud of possessing General Cadorna, a military genius equal to any that the war has produced. His latest achievement, that of storming the supposedly impregnable castle of Monte Santo, will live in history.

But, indeed, the castle and the fighting that has gone on round it must ever after this occupy a great place whenever the story of the Italian-Austrian war is told. In May the Italian army actually reached Monte Santo, but against the formidable defences they were unable to make headway, and after that the Austrians believed in its perfect security. The particulars of the manner in which this great battle was won have not yet been forwarded, and we may expect delay, as the operations will not end there, and no purpose would be served by telling the enemy too much. However, a total capture of 23,600 prisoners gives some idea of the magnitude of the victory achieved. Its significance is that the eyes of Austria have been taken out and new eyes given to her opponent. Italy from this vantage ground may be expected very soon to make still more striking progress.

BY a curious coincidence the French almost simultaneously gained a corresponding advantage at Verdun. The Germans have defended Mort Homme nearly as desperately as they are defending the coast of Flanders. It was said weeks ago by their military critics that if General Petain were allowed to retake this Hill, which they have fortified with rather more than their usual thoroughness, he would have gained a vantage ground for a new and disastrous attack. The German soldiers were urged in an order of the day to hold it at all costs. Nevertheless, thanks to the fine strategy of General Petain and the unsurpassable dash and gallantry of the French soldiers, the impossible was achieved. The embarrassment of the Germans may be judged from the fact that they pursued the same tactics as they did in regard to Sir Douglas Haig's recent victory. They first denied that the French had gained Mort Homme and then invented a story of it having been taken by storm. They do not seem to recognise that when the chloroformed German people wake up to understand the falsehoods with which they have been fed their anger will be all the greater.

MR. GEORGE N. BARNES, now Labour Member of the War Cabinet, has issued a very interesting statement in regard to the measures taken to carry into effect the recommendations of the Commission of Enquiry into Industrial Unrest. He does so in a very judicious manner, but those who have viewed labour from a distance must agree that the working men have come out of the test of their patriotism splendidly. They have made no complaints that had not at least a basis of fact, and the steps now taken by the Ministry afford proof of the justice of their demands. Perhaps the most important of these is to be found in Lord Rhondda's scheme for improved food distribution and the check on profiteering. We shall have something to say upon that directly, but in the meantime it may be as well to finish with the steps that have been taken to redress the grievances of Labour. There is the Munitions of War Acts Amendment Act which the workmen have accepted as guard of their interests. The housing difficulty is being grappled with

by the Local Government Board and it is hoped that immediate action may be possible in some quarters. Country labourers have received a fresh start in life through the instrumentality of the Corn Production Act, which provides for them a minimum wage of 25s. a week. These are only a few of the measures taken by the Government, but they ought to go a long way to reassure the Labour men.

THE most important of these schemes is no doubt that of

Lord Rhondda for the control and distribution of food. His machinery is placed upon a local basis. Each local authority is called upon to form a committee of twelve, which must include at least one woman and one representative of Labour. The others need not be taken exclusively from the local authority in question, but any citizen who may be regarded as qualified can be brought in. This is one of the most sensible advances that yet have been made towards realising a policy of food conservation. It is to be hoped that it will be accompanied by a strenuous effort to stop waste in every possible direction. In spite of the needs of the very poor, it is certain that in households where the pinch of war is not felt there is still a very considerable misuse of food. The English people have always been in the habit of furnishing their tables on a generous scale, and where money is plentiful there is a great temptation to go on doing so. But this cannot be permitted. No one is in a position to say exactly what shortage of food there will be during the coming winter, and it is the duty of every patriotic citizen to do what he can to make the supplies we have go as far as possible.

IT is unofficially reported from Berlin that Marshal Hindenburg has come back from a visit to the Kaiser with authority to form Alsace into an Independent Federal State. This is probably only one of many measures taken to throw dust in the eyes of the Allies. It is very unlikely to move the Alsatians from the path they have chosen for themselves. They have never admitted that Alsace is German territory. Just after the war in 1871, to wit, the local magnates held a meeting to declare that Alsace could not be annexed by Germany against the will of the inhabitants. Their claim was that the Province was and continues to be French. Only a few weeks ago it was on the same principle declared that France could not recover Alsace, on the principle that a country cannot recover that which it has never truly lost. No doubt the Kaiser and Marshal Hindenburg thoroughly understand the local feeling, and the announcement about the Federal State being made is merely a Teutonic device for cheating the populace.

SLUM BABIES.

Bodies by sin made weak,
Rude ways and voices wild—
But they run at me in the street and speak
With the voice of my dead child.

Such crowds, if one of them dies
One less to wail or yelp—
But my dead baby in Paradise
Is crying to me for help.

DOROTHY FRANCES GURNEY.

AFTER all the great expectations there were in regard to the potato crop, it is disheartening to learn of the steady progress of the disease. It appeared originally in the south, and is now spreading to the Midlands and thence northward. Advocates of spraying are a little confounded by the fact that sprayed and unsprayed are both suffering from the disease. A possible explanation is that the spraying was too long delayed, but opinion in the end may very possibly veer round to that of Mr. Edward Beckett, who says that his potatoes at Aldenham have never been sprayed and never suffered from disease. For this the reason lies in the planting of the potatoes a good distance apart. Cottage growers are generally inclined to have the drills close together with the idea that thereby they can raise a greater bulk of potatoes. But when the haulms are so close that they intermingle it is evident that they must help the development of disease by retaining moisture. On the whole it would almost appear as if the way out of the difficulty lay in planting the potatoes well apart so as to give each a maximum of fresh air and sunlight, which in vegetable as in animal life are the best disinfectants.

A CORRESPONDENT in this week's number makes the very interesting suggestion that a company should be formed for the purpose of reclaiming waste land in Great

Britain. We are fully in sympathy with the intentions of the writer. It is not the first time that such a proposal has been put forward, only it seems a pity that the opportunity should not be utilised for the purpose of supplying the wants of those ex-Service men who, when the war is over, would like to go back to the land. They could earn good wages while the work of reclamation was going on and, at the same time, be able to obtain a real understanding of the work, so that by the time the land on which they were engaged was brought to the stage at which Methwold is now, they would be in a position to step in and work it on the highly intensive lines which alone can ensure profit in these days. The scheme would have the further merit that it would involve no dispossession of sitting tenants. The men would come into the ownership or tenancy, as might be agreed upon, of what, for all practical purposes, is entirely new land. That would be a great thing for them, and a great thing for the nation would be the creation of an entirely new wealth.

ANOTHER correspondent asks us to recommend a wartime food for fancy ducks and a few swans. The expert to whom we sent the query raises a rather interesting question in a private note with which he accompanies his answer. Reference to the printed reply will show that he recommends a mixture of fish meal, sharps and bran; but after writing it, it suggested itself to him as a possibility that fancy ducks and swans might be classed with pheasants in the Defence of the Realm Act and, therefore, not allowed to be artificially fed at all. He does not recollect, nor do we, any Order that names them, but it seems a natural corollary to the prohibition of feeding pheasants that ornamental water birds should be put on rations too. We therefore give the advice with due notice that it may bring our correspondent into trouble with the Food Controller. As an alternative our expert says, if fancy ducks and swans are really pheasants according to the meaning of the Act, "I can only suggest that your correspondent digs worms for the birds every day." Perhaps someone who is familiar with the regulation will settle this fine point.

THE Agricultural Returns for England and Wales for 1917 are the subject of an extremely interesting preliminary statement compiled by the Board of Agriculture from the Returns collected on June 4th. The prominent feature is a comparison with 1916. The figures show that there has been a small but promising increase in the cultivated area. It amounts to 7,520 acres, which, at all events, is a step in the right direction. In autumn-sown wheat there was a falling off of about 63,000 acres, but this was counterbalanced by a very considerable increase in the area devoted to the spring wheat. This increase amounted to 69,060 acres. The figures prove that the farmers had entered upon their ploughing campaign with great spirit and enterprise. They were thrown behind in the autumn, but before June had considerably exceeded the estimate that 300,000 acres would be added to the arable area. The figures relating to cattle are at least equally satisfactory. It is a fact to be mentioned in history that the livestock in Great Britain attained a record in the third year of the war. The increase is shown in cattle and horses, but not in sheep and pigs. There is a decrease of 4.4 per cent. in the total number of sheep, and 11.5 per cent. in the total number of pigs. The increase of cattle was the greatest ever recorded, although cows in milk showed a fall of 24,000. The total dairy herd was 35,000 larger. The number of heifers carrying their first calves was increased by 40,000, and there were nearly 20,000 more cows in calf but not in milk. There is something almost ironical in remembering that this extraordinary rise in stock should have to be recorded at a time when the Government are taking measures that will inevitably lead to a considerable decrease.

THE saying that "Necessity is the mother of invention" has been proved true very often during the course of the war, in few cases more strikingly than in the discovery of a new source of potash. How this occurred is clearly explained by Mr. Harold Cranfield, Chemist to the Midland Agricultural and Dairy College, in an article which he contributes to the new number of the Journal of the Board of Agriculture. In pre-war days we depended upon Germany for our supplies of potash, or "pot-ashes" as the word was originally written. In the Stassfurt deposits Germany had a supply that was almost sufficient to meet the demands of the whole world; and in what has come to be known as the English way, seeing that we could import the material from that country, the

English chemists did not trouble to look into the possible home source that could be made available for use. The use of potash was gradually increasing in this country, the importation having risen from 4,000 tons in 1895 to 22,000 tons in 1913.

WHEN war broke out, the chemists began to seek everywhere for new means of producing potash. Some thought to find it in bracken and some in seaweed. Practical cultivators, knowing from experience the effect of wood-ashes, resorted to that form of potash, only the quantity procurable was ludicrously unequal to the need. The key to the solution was found in the fact known to chemists that "flue-dust and gases driven off from iron blast furnaces contained an appreciable percentage of potash." Then came the suggestion that these bye-products might be of value for agricultural purposes. Mr. Cranfield gives a very clear account of the origin of the potash in flue-dust, and he estimates the amount available at about 15,000 tons annually, 50 per cent. of which would probably represent soluble potash. We agree with him when he states that he "considers this to be the most important source of potash yet discovered in this country." It will take some time to invent the machinery for extracting the potash, but in the meantime he suggests that the raw flue-dust might be utilised on land which must have become very deficient in potash during the last two years.

FOR A GUEST ROOM.

All words are said,
And may it fall
That, crowning these,
You here shall find
A friendly bed,
A sheltering wall,
Your body's ease,
A quiet mind.

May you forget
In happy sleep
The world that still
You hold as friend,
And may it yet
Be ours to keep
Your friendly will
To the world's end.

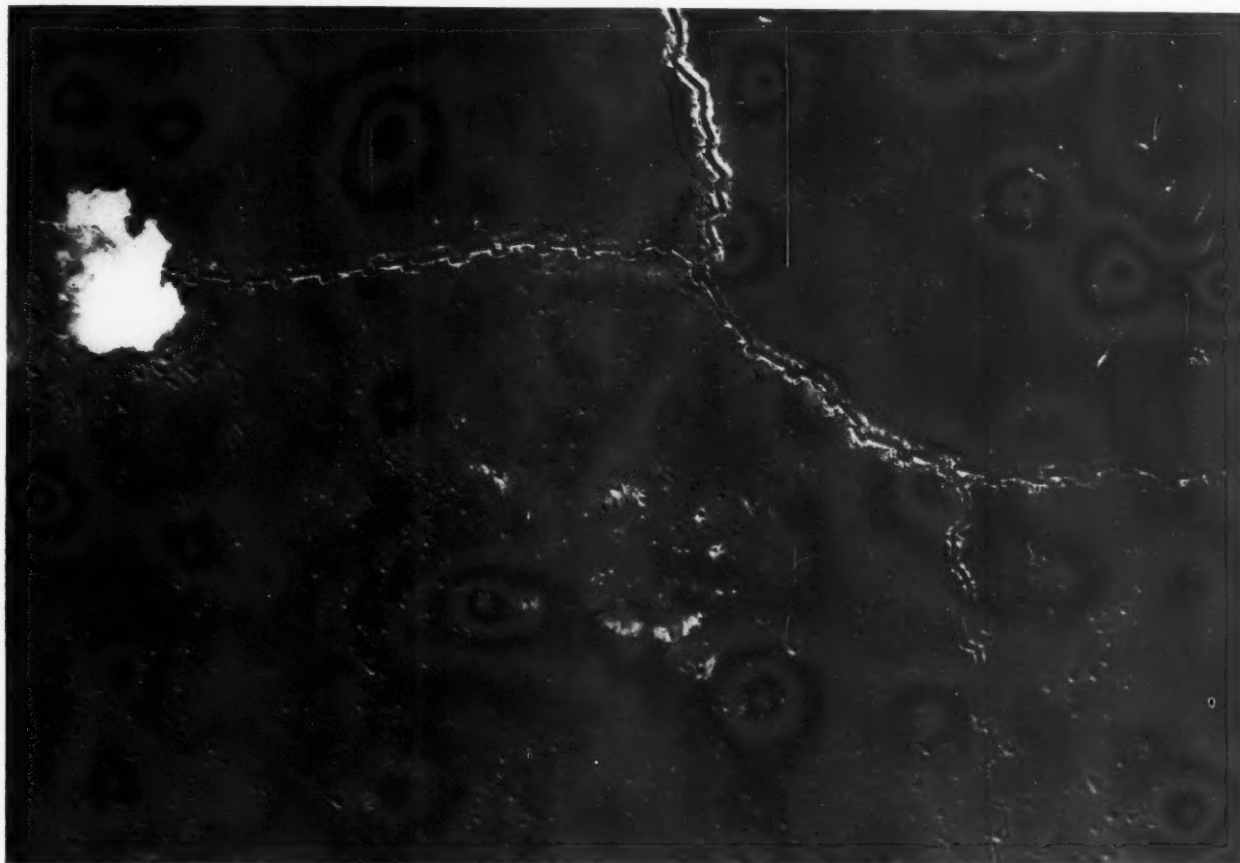
For he is blest
Who, fixed to shun
All evil, when
The worst is known,
Counts, east and west,
When life is done,
His debts to men
In love alone.

JOHN DRINKWATER.

"TOO many figure-heads and too few of the real workers" is the comment one hears made upon the list of civil distinctions which was issued at the end of last week. The idea was our own, so that we cannot very consistently find fault with it. In our issue of September 2nd, 1916, it was suggested that there might be an Order "reserved for the women who have served so nobly in a hundred ways and with head and hand as well as heart." But there are more men than women in the official list. A great many of them seem to be there simply because they are the heads of Departments. The most interesting feature of the list is undoubtedly the last part of it, which appears to be an honest and efficient attempt to confer honours on the plain citizens who in face of unheard-of difficulties have tried to do their duty to the country. Naturally, many come from the munition works. The heroism shown by many girls who have been taken from shops and offices to work with dangerous explosives proves, at any rate, that the women are of the same breed as their brothers. The men who do and dare at the front have their counterparts in those girls who toil at a very dangerous trade with courage and, in emergency, presence of mind. Standing out by itself is the story of an old man of seventy-four who showed as much pluck and endurance and patriotism in civil life as any soldier could have done on the battlefield. If the scheme is further developed, it should be along this line. The conferring of honours upon people who do not want them is, to say the least of it, unnecessary.

PHOTOGRAPHY'S PART IN THE WAR

[Everybody has noted the obvious satisfaction with which Sir Douglas Haig records that airmen have taken photographs within the German lines. The value and precision of this camera work will be apparent from a perusal of Mr. Ward Muir's article and a study of the examples which we are permitted to show.—ED.]



This illustration shows a heavy shell bursting over trenches full of Germans. The men may be plainly seen crowding into the trench junctions. Note the numerous shell holes.

THE official history of the war, if we ever live to behold it or have time to read it, and if it aims at anything like completeness, will be a colossal undertaking. While we await its production we ought to be treated to a series of—so to speak—side-line histories: books which will not attempt to describe the war as a whole, but which will tackle particular aspects of it. One's mouth waters at the thought of the revelations which, in this form, will sooner or later be made: one can reel off, on the spur of the moment, a string of exciting titles. What wonders will be explained to us in "Engineering During the War," or in "New Experiments in Surgery," or in "Some War-time Inventions," or in "Innovations in Military (or Naval) Tactics"! How fascinating will be the "History of Transport Organisation," or of "Underseas Manœuvres," or of "Reprisals," or of "Diplomatic Communications with Enemy Governments," or even of "The Attitude of Civilians," or of "The Journalism of Belligerent Countries"—in the happy future era when the Censor shall have ceased to suppress all the most tempting truths! The present writer happens to think that not the least curious of these accounts will deal with the part which photography has played in

the tremendous conflict. It may sound an unpromising subject. The camera does not seem, on the face of it, to be a very lethal instrument. Nevertheless, among those who know the facts of the case, photography is regarded with no small respect; and the camera is quite seriously estimated as a factor on which not only present strategy, but the strategy of armies yet unborn, will have to count.



A tented camp photographed from above on the occasion of an inspection. The bedding, kit, etc., of the men may be seen in front of each tent, while various figures may be discerned standing in front of the first row of tents.

This is genuinely something new; for whereas some of the war's most widely proclaimed novelties (such as the tank, the wearing of armour, hand-bombing, and so forth) are modernised revivals of ancient devices, photography in the nature of things can have little precedent, and photography from aeroplanes no precedent at all. True, photography from aeroplanes was tried before the war—from the military standpoint so unfruitfully that it had been condemned and abandoned. When the 1914 campaign had settled into trench warfare we took panoramic views of the German positions on the Aisne—as seen from our own positions, that is, from the ground. Until early in 1915 no photographic surveys had been made by us from aeroplanes flying over the enemy's trenches. Our knowledge of military-aerial photography is therefore less than three years old. That its practice should have crystallised into its present technical perfection in so short a period is indeed a tribute to the men who have puzzled out a problem in which, manifestly, there was no guidance from the past, and



A squadron of battleplanes drawn up in review order, photographed from the air. Small figures of air mechanics may be noticed at the entrances of the hangars and near the roads.

whose solution involved both a high degree of inventive application and a very fine personal courage in the necessary experiments.

As I say, the history of photography's doings in the war should be written; for the present we can only indicate—and that reticently—the results, without giving the narrative of the steps which led thereto or mentioning the names of those whom England has to thank for this fresh and wonderful weapon placed in her hands.

The modern military-aerial photograph—of which some beautiful specimens were recently published in *COUNTRY LIFE* for the first time—is no mere hasty and haphazard pot-shot which may or may not include information of value. It is a deliberately sought document which owns the exactitude and recognisability of a map—with this notable proviso, that it is a map not liable to the errors of human draughtsmanship nor to the common defect of relying on the researches of previous cartographers. The camera's lens, peering vertically downwards from, say, 6,000ft. on a given area of



An aeroplane photograph of battalions (1) of infantry drawn up on the evening before a recent attack. The men are about to be addressed by the General Officer Commanding the Corps to which they belong. The motor cars of the General and his Staff (2) may be seen on the road in the foreground, and the officers themselves (3) may be seen making their way across the field. The photograph was taken from an aeroplane told off to protect them in case of an aerial attack, as at the present day it is inadvisable to manœuvre bodies of troops in the open without protection from possible enemy attack.



Trenches old and new. Those immediately facing the road are disused, having become partly filled in. Our habitable trenches may be noticed further to the left of the picture.

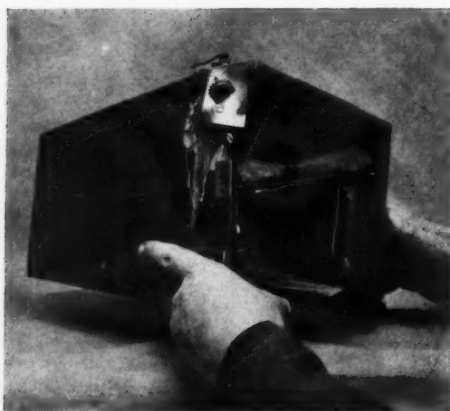
countryside, not only "sees" everything thereupon, the objects in the middle being simultaneously as plain to it as the objects at the edge (a feat virtually impossible to the eye), but also, automatically and soullessly, *records*. It records—and with a minuteness of detail, a comically unemotional impartiality which is not attainable by any Intelligence observer, however astute. Being a machine, it neither expects anything nor forgets anything. No one item in the view interests it so much that it overlooks some other item; no phenomenon pleases or displeases it, disappoints it or fits in with preconceived theories. Hence the perfection of its map-making. Furthermore, its map-making has this peculiarity, that it is progressive; photographs are taken day after day and week after week over a given circuit, so that not alone are the unvarying features of that circuit registered, but also the varying ones. Here is a *terra incognita* whose most vital characteristics (the lines of trenches, the whereabouts of gun emplacements, ammunition dumps, hangars, reserves, roads and paths of communication, and a host of other things) may alter, so that a map a week old is obsolete. Well, we do not rely on a map a week old, when a map only an hour old—a map scarcely dry from the chemicals—is before us. And, indeed, the significant differences between microscopic dots and dashes in to-day's map and yesterday's map may tell us exactly the tale for

which we were waiting, and to learn which by ordinary, non-mechanical methods might have been nearly or quite impossible, or an affair of such patient slowness that a priceless opportunity would have been missed.

The above remarks are, to be sure, generalisations, and I wish that it were allowable to expound this new camera craft with less tantalising gaps and innuendoes. At all events,



Aerial photograph of the River Tigris taken from beyond Kut. We hear something of the work of the Flying Corps in France, but it must be remembered that it is just as active in every other part of the world where British troops are fighting.



Photographic aerial reconnaissance proves so valuable that it is only natural to expect that aeroplanes doing the work should be subjected to a considerable amount of bombardment. In this photograph we have a camera which has been hit by a piece of shrapnel while over the German trenches at a height of 10,000 feet.

by the thousand are obtained, month after month, with constant regularity. Those pictures would convey nothing, or next to nothing, to the uninitiated—for the obvious things in them are generally the things that do not matter. It is the more delicate tones and half-tones, specks, circles, streaks and (apparent) flaws which, to the specialist who has undergone a course of training that enables him to "read," disclose so much. Without giving away the more subtly triumphant secrets of the craft, it may be said that the photographs clearly show every inch of the enemy's trenches (and it must be understood that distances can be measured on these photographs as on a map); they show whether a trench, or any other position, is really occupied or not; they show the

it may be said that by means of this novel form of photography, which is achieved in circumstances of hair-raising peril and under conditions which the pre-war amateur would have pronounced prohibitive, pictures by the hundred and

whereabouts of, and quantity of, barbed wire; they easily detect the types of *camouflage* which would deceive the eye; they record the building, and then, probably, the "concealment" of gun emplacements, etc.; they note the arrival or departure of reinforcements and of supplies; they chronicle movements even when those movements have taken place during the hours of darkness—for some traces always remain, to exercise the acumen of the "readers."

One's list of what the military-aerial photographs have detected for our Commands might be continued for columns.

The more one learns of the "reading" of these queerly romantic bromide-print maps, the profounder grows one's admiration for the folk who have toiled to make the whole marvellous system practicable. Wisely, they have so standardised its procedure that almost nothing depends on the adroitness of the flying button-presser himself or on any technical dodges indulged in by the squads of khaki-clad developers and enlargers who receive his plates. Sheaves of flawless enlargements from those plates are ready an hour after the button-presser has returned from his flight. The speed at which this part of the job is carried out is astounding: such rapidity of workmanship, combined with such matchless quality, has never before been approached in any private laboratory or studio. Almost nothing, I say, depends on these stages of the work, for here every tiniest step is standardised and made, as nearly as may be, mechanical and automatic. Everything depends on the corps of officers



This shows a lens which was hit by a machine-gun from a hostile aeroplane. (In both these instances it is good to know that the pilots and observers returned unharmed.)



Aerial photography has undoubtedly come to stay, and accurate maps on a large scale are very easily prepared from these photographs. This is a typical illustration from one of a series taken for this purpose. It will be noted that there are two bridges over a railway, each sleeper of which is easily discernible in the original photograph. It is of interest to note that this wonderful definition is obtained with an English-made lens, a war-time product of a famous British firm.

who sit in their staff quarters and at leisure examine, tabulate, weigh up, figure out, and finally report on the button-presser's trophies—nay, perhaps on precisely those phenomena of the landscape map which the button-presser, even if unpreoccupied with the attentions of Fritz's shells, utterly failed himself to notice when he gazed down upon them from aloft. Other forms of flying reconnaissance involve sharpness on the spot. This form involves only sharpness afterwards, in the peace of the study when conundrums can be excogitated logically and calmly. The observing is not done in a hurry and flurry in the air; it is done at home without interruptions and distractions, in safety at a comfortable table and in consultation with experts.

At the Allied War Photographs Exhibition, which was noticed not long ago in these pages, we saw how a pair of reconnaissance pictures would show an enemy position before and after bombardment, the ruin observable in the second picture being the result of the information given by the first one. When a bombing attack from the air is made

on an enemy railway junction, or what not, the photographs which are taken simultaneously or immediately afterwards prove at a glance whether the bombs succeeded in hitting, or failed to hit, their objective—a most important point; and, if they did succeed, how considerable was the havoc wrought. Some of the photographs thus taken actually show smoke and flames issuing from the bombed object, or—in the Eastern theatres of the war—water pouring from the cisterns which we had set forth to destroy. Others have shown that objectives which the bombers thought they hit had, in fact, been missed, and must therefore be attacked again. The sheer day-to-day utilitarianism of the military-aerial photography done on every front by the Royal Flying Corps can hardly be exaggerated. Its mappings, its spyings, its verifications, are unbelievably precise and absorbingly elaborate in texture. In a score of ways the camera is not only helping us to win our battles, but saving an unreckonable host of our soldiers' lives in the process.

WARD MUIR.

PRACTICAL TEACHING FOR THE CHILDREN OF FARMERS

THE FARM INSTITUTE AT SPARSHOLT.

BEFORE the war Hampshire had already earned a good reputation for enterprise in farming. In the popular mind it is probably associated mostly with its famous breed of sheep, the "Hampshire Downs," but, as a matter of fact, the soil is greatly diversified and lends itself to every kind of husbandry. For a long time the County Council has devoted itself very much to the forwarding of agriculture by educational means. The Institute at Sparsholt is a thing of its own kind altogether. It used to

have its home at the old-world village of Basing, on the banks of the Loddon, about two miles from Basingstoke,

but before the war it had been removed to Sparsholt, near Winchester. Its character is thoroughly practical. It is

not an agricultural college in the ordinary sense of the term, and it is not a mere training farm. It is something between the two. The students are mostly the sons and daughters of Hampshire farmers. The course they put in lasts about a year, and its object is to give the pupils a practical acquaintance with farming operations. They learn by work but are encouraged to ask as many questions as possible, and a peculiar and admirable arrangement is that the various servants engaged in outdoor work, and



INSTITUTE GIRLS IN THE TURNIP FIELD.



A PIECE OF GOOD THATCHING.

Teaching of the art of thatching is a great feature of the Institute.



THE DUMMY COW.

Hand-milking practice for strengthening the wrists.



MILKING A KICKER.

indoor work, too, as a matter of fact, are given extra wages in order that they may stop when required and answer questions. Thus the teaching is not by lecture and professorial demonstration, but by work that in a sense is experimental as far as the pupil is concerned, and abundant facilities are provided for teaching the different branches of husbandry.

Attached to the Institute is a farm of 250 acres, which presents an epitome of the general features of Hampshire land. On this the students learn to plough and sow and reap and weed and qualify generally. Also encouragement is given to an intelligent use of artificial manures, the properties and effects of which are explained. New machinery is investigated, and points by which to know a good cow or other animal from an inferior one are brought home directly to the eye. Nothing is trusted to mere theory. Almost as useful as the farm is a very well managed garden where all the usual garden crops are grown, and grown in very excellent style, so that those who assist in the gardening work must go forth with a practical knowledge not only of the ordinary methods of horticulture, but of the means whereby the very best results can be produced. The only thing that we could suggest to add to the efficiency of the farm is the institution of little trial plots. Mr. Gleed, the Acting Principal, is himself a very advanced gardener, and one who thoroughly appreciates the place that artificial manures should fill in the economy of the garden. But if each pupil had a little plot on which experiments in growing might be made with and without artificials, it would add to the educational value of the course.

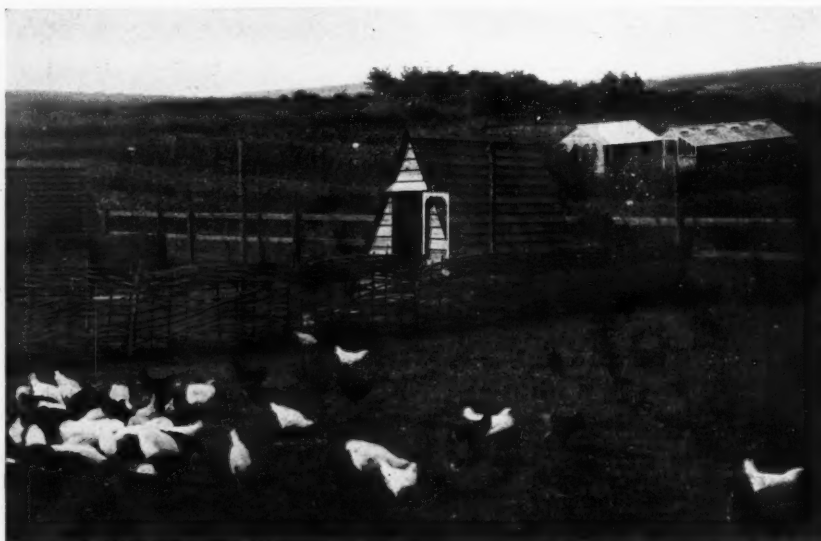
Pains are taken to inculcate the little arts of the country-side, many of which are in danger of being forgotten. For example, thatching in the Norfolk style is taught very carefully. A photograph which we show of a rick thatched by the students will give an idea of the perfection that has been attained. The boys and girls are not allowed to start

on a real rick, but they have a dummy one with which teaching becomes easier.

It is the same with the dairy. The problem is to get girls to do the milking and so on, as there are not men enough really to go round. They do it very well, although milking pupils are not very advantageous as far as the cows are concerned. The animals do not like changes and resent the substitution of a rough pair of hands for a delicate pair. It is impossible to avoid something like this occurring, but in order to reduce this as much as possible a dummy cow is found very useful. It is not really a cow, as will be seen by the photograph, only an udder, but the teats are, if anything, more difficult to manipulate than the natural ones, so that the scholar not only learns the proper attitude and the use of her hands for milking, but as she continues during the same period as she would with a living cow, the exercise has the effect of strengthening her wrists, and, generally speaking, getting her fit for the work. As a rule the girls are very glad when the monotonous dummy is exchanged for the live animal. Some of them are very live indeed, as will be seen from the photograph called "Milking a Kicker," where one milkmaid securely holds the legs of the eligible bovine, while the other causes the milk to flow into the frothing pail. This cow is an example of the kind that revolt at being placed in inexperienced hands. One of the most profitable uses to which milk can be put in these days is the production of cheese. They make a very good Stilton at the Institute, a little cheese which they call the "Allotment" cheese and a soft cheese. They all have that

taste and flavour which belong to the really good high-class cheese, and we were not surprised to learn that many prizes had been won for cheesemaking by the Institute.

The poultry yard work is taught on the same intelligent lines. In the photograph of it a note should be made of the very excellent little shed which was made on the premises according to a plan sent down by the Board of Agriculture. This type of house was thought to



THE POULTRY YARD.

Note the excellent chicken house, home-made from a model supplied by the Board of Agriculture.

be rather dark by the expert who first looked at it for the Board of Agriculture, but in practice this is not greatly felt. The form of the roof has the effect of making the inside comparatively cool in summer and warm in winter. The chickens looked very fresh and gay, and one is sure that the experience of poultry-keeping gained at the Institute will be valuable on a farm afterwards.

OAT STUBBLES AND ROOTS

AT this time of year the ploughing of oat stubbles is the chief business of the farmer. In the extreme South his oats have for a considerable time been under "thack and rape," as the Scotch farmers say, but as one travels North the progress is less marked, and in the greater part of England at the present moment oats are either uncut or are standing in rows of stooks. The farmer who is thrifty and tries to make the most use of his time arranges the rows at a considerable distance apart, so that if the carting be delayed, he can go on with the ploughing meanwhile, and many fields can be seen with the rows upon little slices of unploughed soil. There are two methods which are often carried out simultaneously by different farmers even on soil that is practically identical

and with crops in which there is no marked difference. The oats have been rather thin this year and allowed both annual weeds and twitch to enjoy more than their fair share of prosperity. The farmer's object is twofold. First, he wishes to get rid of the weeds; and, secondly, to produce a fine tilth for the root crop which he destines to follow the corn. One farmer begins by shallow ploughing, which will be followed in the course of a few weeks by cultivating and harrowing. His great object is to get the weeds scorched by the sun.

When that is accomplished as near as possible, then he follows with deep ploughing—8ins. or 9ins.—and in that way leaves his field for the winter frosts and sun to do the pulverising. The other man goes on a different line altogether. He begins at once by deep ploughing, and he follows within a few weeks with ridge ploughing, making what he calls "bouts" with ridges between them.

Both of these methods must be regarded as good husbandry, but the weather alone can decide which is the better. If the sun should come out—which it does not do very freely or joyfully at this season of the year—then the man who ploughs first with a shallow furrow will derive the benefit because his weeds will be scorched and killed. But when the middle of August has gone by, it is not safe to depend on much fine weather following, and if the season should turn out rainy, then the other farmer will be able to score. His deep drills act the part of drains, carrying off a great deal of the surplus water, and the high ridges being thoroughly exposed to the atmosphere and becoming moderately dry will give a very fine tilth in the ensuing spring.

CONCERNING TRACTOR PLOUGHS & PLOUGHING

BY "PLOUGHSHARE."

WHATEVER its benefits may be, there is no doubt the motor tractor is a very disturbing influence on the farm, as its advent opens up entirely new possibilities and creates many new problems for consideration. The speed with which ploughing can be done makes it possible to do so much more in the summer and autumn when the crops have been taken off that the whole time table of the farm may be altered and possibly a new and improved rotation adopted. A point for serious consideration will be that of depth of ploughing, as in the majority of cases farmers have not really worked out the pros and cons of deep ploughing except within very narrow limits, viz., the limits set by the capabilities of horses both as to power and rate of working.

How many farmers, for instance, have ever thought of ploughing 18ins. deep, which depth is quite within the power of many tractors? No farmer could afford to maintain the horses necessary to do such heavy work, neither would he have the necessary time between growing seasons; therefore, not being a business proposition, such a question has not received consideration. New factors now render it unsafe for the farmer to rely upon the experiences of his neighbours and relations of the past generation; he must now think for himself on many subjects and have the courage to break away from practices so firmly established as to be regarded almost as laws.

I am firmly convinced that within the limits fixed by depth of the soil itself, very deep cultivation will in time be universally adopted. One has only to consider the crops from a garden which has been deeply dug or double trenched and to imagine what the crops would be if we could treat all our fields to the same deep and thorough cultivation.

The first and most important implement on the farm to be affected by the motor tractor, therefore, is the plough, which has already undergone many changes as compared with the implements formerly used with horses; but in very many instances the implements designed for tractor ploughing are still little more than horse ploughs made heavier and stronger, and few indeed of the British makers have realised that motor power means deeper ploughing and that, consequently, very much greater clearances should be provided. Some ploughing which I have recently been doing with a tractor was limited as to depth, by the want of clearance provided by the plough, to 10ins., this being the greatest depth which could be accomplished satisfactorily. The tractor was quite capable of another 2ins. or possibly 3ins.

Another point for consideration is that of width of the furrow slice. If the slice is to be turned well over, the depth must be some defined proportion of the width. A usual proportion is depth equal to rather more than half the width of the furrow, say, 6ins. by 10ins. On the same basis a furrow 12ins. deep would be 20ins. wide. "Utterly impossible for England," I hear someone say; but is it, and if so, why is it? I have ploughed 18in. furrows myself, and this width is common in America for horse ploughs, where riding ploughs and teams of from four to eight horses are not unusual.

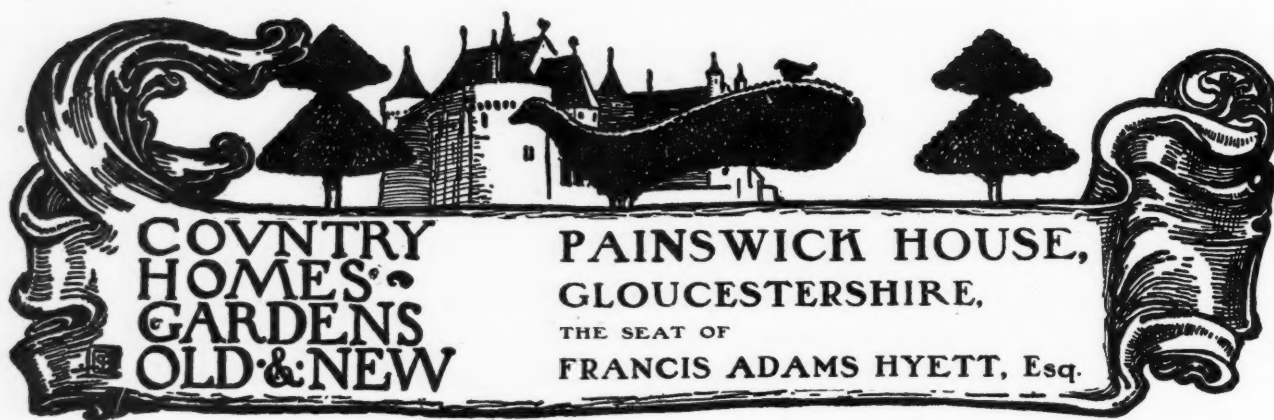
On stiff clay soils no doubt the difficulty of breaking up the big clods is what appals the farmer when he pictures such a field to himself, but probably he is thinking in terms of horses. With tractor power clay lands can be ploughed when they are hard and dry, and they break up considerably in the ploughing, and then with motor power again available, heavy clod crushers, stiff cultivators and tandem-disc harrows soon reduce the most obdurate of land to a condition that could not possibly be attained with horses. A good tractor in the hands of an intelligent farmer will be found to have many advantages for dealing with stiff soils, and of course it must be remembered that the more often the deep ploughing is done and the soil weathered and humus worked in, the more friable and mellow the soil will become, and less and less the tillage work necessary to obtain a good seed bed at sowing time.

(In regard to the foregoing I want the reader to note that I am dealing with ploughing matters from the mechanical side, and am not discussing the advisability of ploughing clay land straight away 12ins. deep. I hope later on to deal with some theories in connection therewith as well as some practical results obtained from deep ploughing of clay soils.)

To return to the ploughs. British makers should devote themselves to producing a good self-lift plough for use with tractors; that is, a plough which, on the pulling of a cord by the tractor driver, automatically lifts itself clear at the end of the furrow, another pull causing the plough to drop on entering the new furrow. At the present moment there is not a single British maker of such a plough, though a firm in Scotland is making arrangements to produce an automatic self-lift attachment which can be adapted to several standard makes of ploughs already in existence.

Hitherto many of the farmers have not looked kindly on self-lift ploughs, by reason of the fact that such ploughs as they have seen at work have been imported American implements fitted with breasts which have not dealt with the soil in the way to which the farmer has been used. Instead of being greatly interested in the mechanism which eliminates the necessity of a ploughman, I am afraid Mr. Farmer has often condemned the implement right away because the furrow slice was not to his liking, and has not stopped to consider that the style of the work done has little or nothing to do with the absence or presence of the self-lift mechanism, but is dependent upon the plough fittings and the setting of the plough.

I have seen acres of the most perfect work done by self-lift ploughs, and as labour conditions make them now a decided advantage economically, there can be no doubt that their use will greatly increase. I am informed that there are already hundreds of imported self-lift ploughs in this country and many more hundreds on order from America, and I feel that it is a great pity that such orders have to go out of England. However, if the modern farmer cannot obtain labour-saving machinery from British makers, he necessarily must procure it from abroad, as farming is becoming more and more a factory proposition and requires the most efficient machinery available if it is to be carried on profitably.



THE genesis, development and evolution of old houses offers a perpetual interest, not merely to antiquarians, but to their owners, if only local masons and repairers, at whose mercy their historical features perforce, at one time or another, lie, were animated rather more with the spirit of the fine surgeon than with that of Dr. Sangrado, or the house-agent, as too often they appear to be, and thus could be brought to understand this. In this matter Painswick House, originating in one of the more important old farmhouses of the manor, called after very early yeomen tenants by their own name "Heryngs," has been more fortunate than have many good houses in Gloucestershire.

Needing a nobler residence than the gabled farmhouse which he found on the fine site which he had purchased from the Adeys in 1733, Charles Hyett (Member of Parliament, 1722-7), Constable of Gloucestershire, built in its stead the central square portion of the present house, preserving only at the rear a bakehouse and a brewhouse, which had been added to Heryngs not more than thirty years before, or in Queen Anne's time. The principal entrance to it occupied the place of the somewhat incongruous little Ionic porch; and

the Hall, into which that led, was the present Library (Fig. 2). Judging from its measurement and by the distance between the bakehouse and brewhouse surviving at the rear, the original Cotswold farmhouse probably had a substantial façade of two broad gables with a small court behind it.

Some twenty years later Bishop Pocock, travelling through England, reached this locality in the month of May, 1757, and wrote: "We came to Painswick, a market town prettily situated on the side of a hill, and esteemed an exceeding good air. Just above it Mr. Hyatt (hath) built a house of hewn stone, in a fine situation, and made a very pretty garden. Before it is a court with statues and sphynxes, and, beyond that, a lawn for the grand entrance. The garden is on an hanging-ground from the house in the vale (*i.e.* combe) and on a rising ground on the other side and at the end. All are cut into walks through wood and adorned with water and buildings, and in one part is the Kitchen-garden." The Bishop, it may be observed, corroborates the MS. statement of Thomas Baskerville, who came through Painswick in 1682, and terms the air "ye finest in ye County of Gloucester."



Copyright.

PAINSWICK : ENTRANCE FRONT.

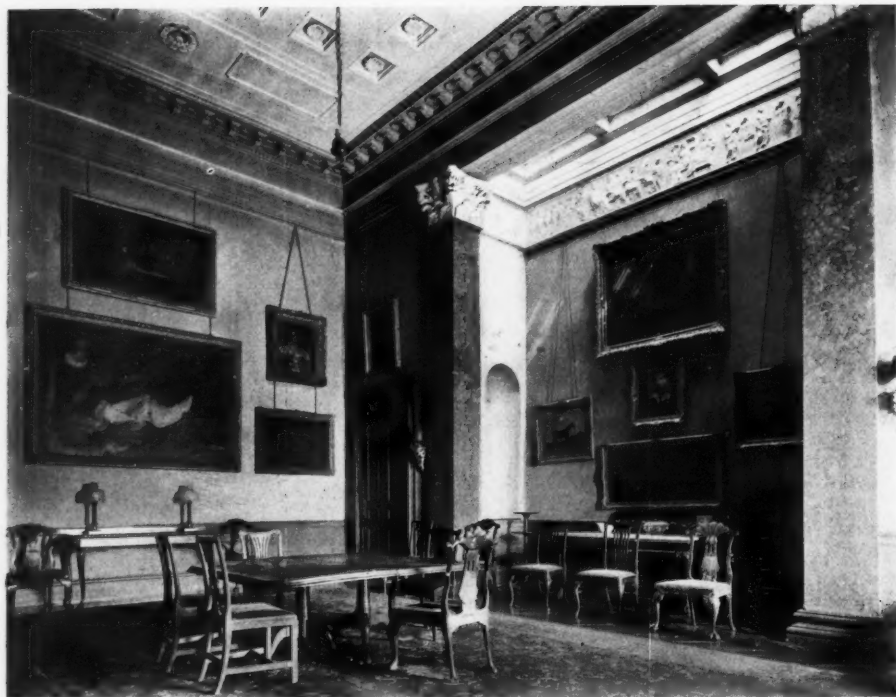
"COUNTRY LIFE."



Copyright

THE LIBRARY.

"COUNTRY LIFE."



Copyright.

DINING-ROOM.

"COUNTRY LIFE."



Copyright.

DINING-ROOM FIREPLACE.

"COUNTRY LIFE."

Except for the magnificent views to the west and south, which it commands, it could not have been considered an important nor certainly a very convenient house at that period. Moreover, the present surrounding park had not commenced the making. For Painswick's ancient park was a great deer park situate a mile away, belonging to Sir John Jerningham, Bart., but then rapidly being cut up into pasture and grain-fields, and Mr. Charles Hyett's house, in lieu of its old local name of "Heryngs," was becoming known by a merely fancy one, "Buenos Aires." Nothing was added to it by his son and successor, Benjamin Hyett (died 1762), neither did the estate include more than some sixty acres of ground, though a pretty stone pigeon-house and an avenue of limes were added on the south-west ground falling towards Painswick.

The remarkable transformation which afterwards ensued occurred under the late William Henry Hyett, M.P. (1795—1877), son of the Rev. Henry Cay Adams, to whom Benjamin Hyett in 1810 bequeathed his estates. This owner happened (besides having travelled extensively in Italy, Greece, Albania—where he visited Ali Pasha—and having fashionably swam the Hellespont) to have for a brother-in-law George Basevi, the designer of Belgrave Square and of the Fitz-William Museum.

With the gradual recovery of values after the general Peace, Building as a trade received great encouragement at the hands of the Regent, presently King George IV, and Gloucestershire was not unaffected by the movement (witness Fordington and other large houses). Basevi added the two large wings to Painswick House (Fig. 1) and the principal lodge. In consequence of this the former Hall became the present Library (shown in Fig. 2), in which the book-cases are also from Basevi's design. It is, however, in the great dining-room, or north-west additional wing, that the architect reveals his accomplishments (Figs. 3 and 4), and where, in memory of the then owner's Athenian leanings, we see incorporated sectional casts of the Parthenon frieze within the two recesses, and a fine mantel and fireplace of black marble. Above the latter, among family portraits, hangs James Roberts' picture



Copyright.

THE STAIRCASE.

"C.L."

of the Rev. Dr. Adams, Master of Pembroke and friend of Dr. Johnson, of the latter of whom also there is here a pencil portrait by the same artist. This last picture, which is signed, was made under the following circumstances: While Johnson was visiting Oxford, the painter (perhaps rashly) offered Miss Adams a sketch of anything she might like. With singular tact, instead of demanding a rival's head or even her caricature, she asked for a sketch of her father's illustrious guest, with whom she was a great favourite. Johnson agreed to sit, and said to her (calling her by a pet name): "You, *Slim*, must stand before me

to make me look pleasant: for I'm but a sour-looking old man!" On another occasion, when this charming lady was pouring a cup of coffee for the Doctor from a Queen Anne silver pot which he admired, she remarked to him: "This is the only thing here that I can call my very own." Without a moment's hesitation Dr. Johnson exclaimed: "Oh, Slim, is my heart nothing?" It is believed that this coffee-pot is the one in use here to-day. Sarah Adams married Benjamin Hyett in 1788, four years after Johnson's decease, and she died in 1804. In Fig. 7 is seen a good example of the nobler sort of Chippendale chair, one of a very fair set in this dining-room, where may also be seen a good Hondekoeter and a sketch by Van-der-velde.

The landing on the stairway, which is lighted by a good armorial window by the late James Powell, carries two Corinthian columns of oak, which once adorned the Chapel of St. John's, Oxford, and became the property of a furniture dealer in that town.

The collection of county literature in the smaller library is scarcely rivalled elsewhere, and has borne rich fruit in the shape of the five volumes of "Gloucestershire Bibliography," a model of skilled and patient writing, lately reviewed in the *Times*.



AT PAINSWICK HOUSE.

ST. CLAIR BADDELEY.



Copyright.

DETAIL OF STAIRCASE.

"C.L."

THE FLYING FLOWERS

(To Margaret and Edmund.)

On the allotment ground
I saw four flitting butterflies,
Chasing round and round.
They looked like little quivering flowers
Swift upon the wing;
Kind flowers that come from gardens rare
Knowing the joy they bring.
Now isn't that, my children dear,
A pretty song to sing?

If flowers could only fly
We might see any day
A new surprise-full garden
For the children's play;
What fun 'twould be
To wake and see
The line of lilies gone,
And in their place
Some fragrant race
From coral islands flown!

But flowers will never fly!
No, nor will little pigs,
So he who wants a garden
Sows and plants and digs—
And that, my laughing children dear,
Is where a poet scores;
Who tends the garden of his mind
Owns blossoms fair of every kind,
Calls any flower
At any hour
From dim and distant shores.

AIDAN CLARKE.

DURHAM CATHEDRAL.—I

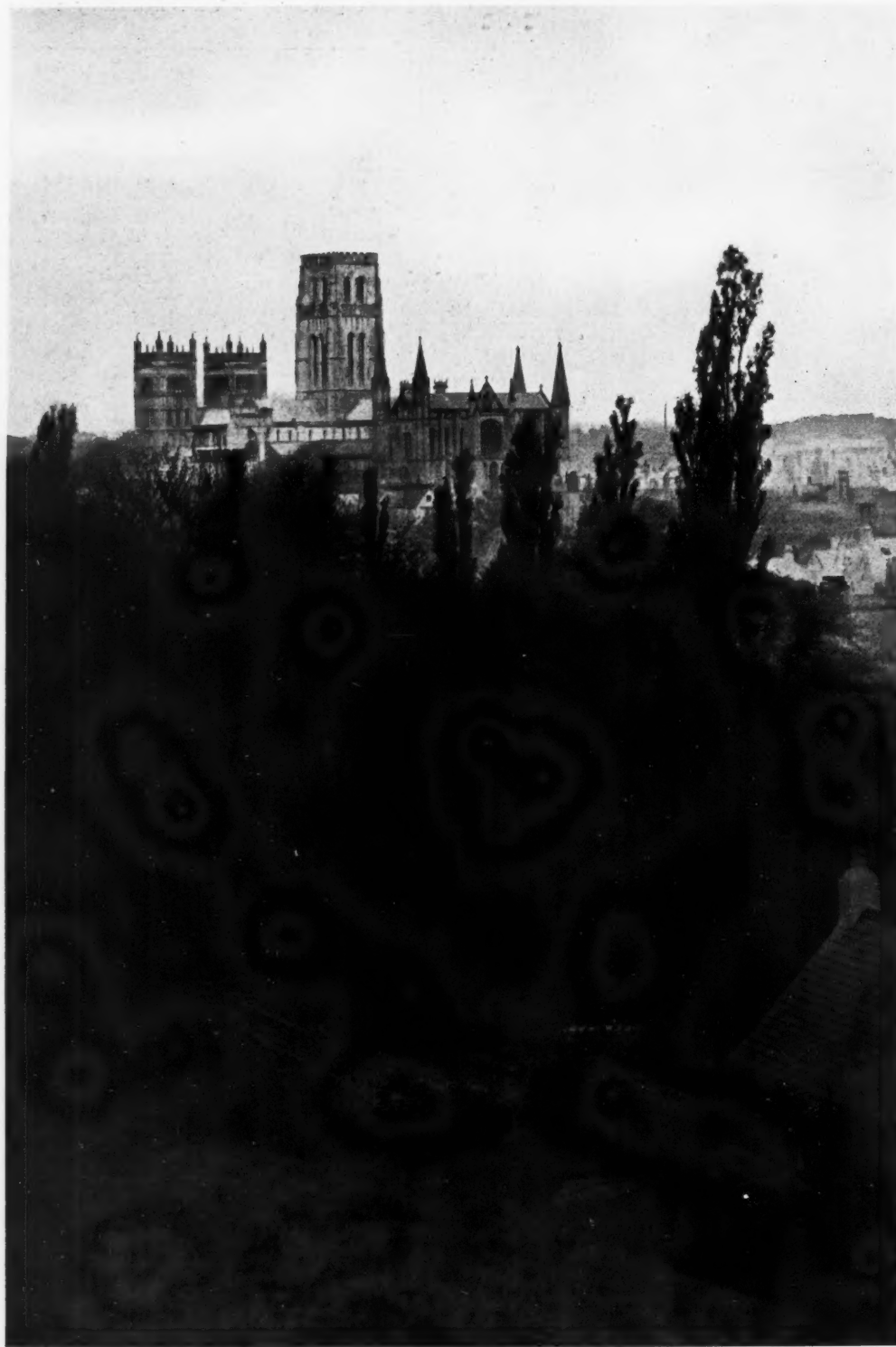
BY A. CLUTTON BROCK.

DURHAM Cathedral, seen from the train, is one of the great buildings of the world. A building may be vast in fact like the Crystal Palace; or it may provoke the imagination to a sense of its vastness. This it can do only when it is great architecture, though all great architecture does not do it. But Durham does; many churches are bigger, but none

most towering building in the world, although different in design from the towering churches of France; for, whereas the whole body of a French church seems to strain upwards, the body of Durham, long and low, rests quietly on the summit of its hill, and the three great towers are like mountain peaks rising from it. Yet they are not like mountain peaks, since they are evidently the expressive work of

man; they are not merely a lucky and romantic chance, but, in every particular, designed to say what the builders had to say. They are like music, not like a tremendous noise; and yet they have the vastness of Nature itself.

But the cathedral seen thus from a distance is a Gothic church, although the great mass of it is Norman. From every point the effect of the exterior is Gothic, because of the predominance of the great central tower which is one of the chief masterpieces of our later Gothic; and this Gothic character is increased by the pinnacles of the eastern transept, wherever they are visible. Yet we think of Durham as a Norman church, as the greatest of all our Norman churches; and that is because we remember the interior more even than the exterior. And, indeed, the interior is greater than the exterior; it is the chief masterpiece of the Romanesque in England, and even in France there is nothing to surpass it. For it is one of those few buildings which, while they are charged with the momentum of the greatest architectural movement known to us in history, yet also have the character of individual genius. There is this momentum in all the Romanesque, both of France and of England; and that is why we call it Romanesque rather than Norman. The term "Norman," however familiar to



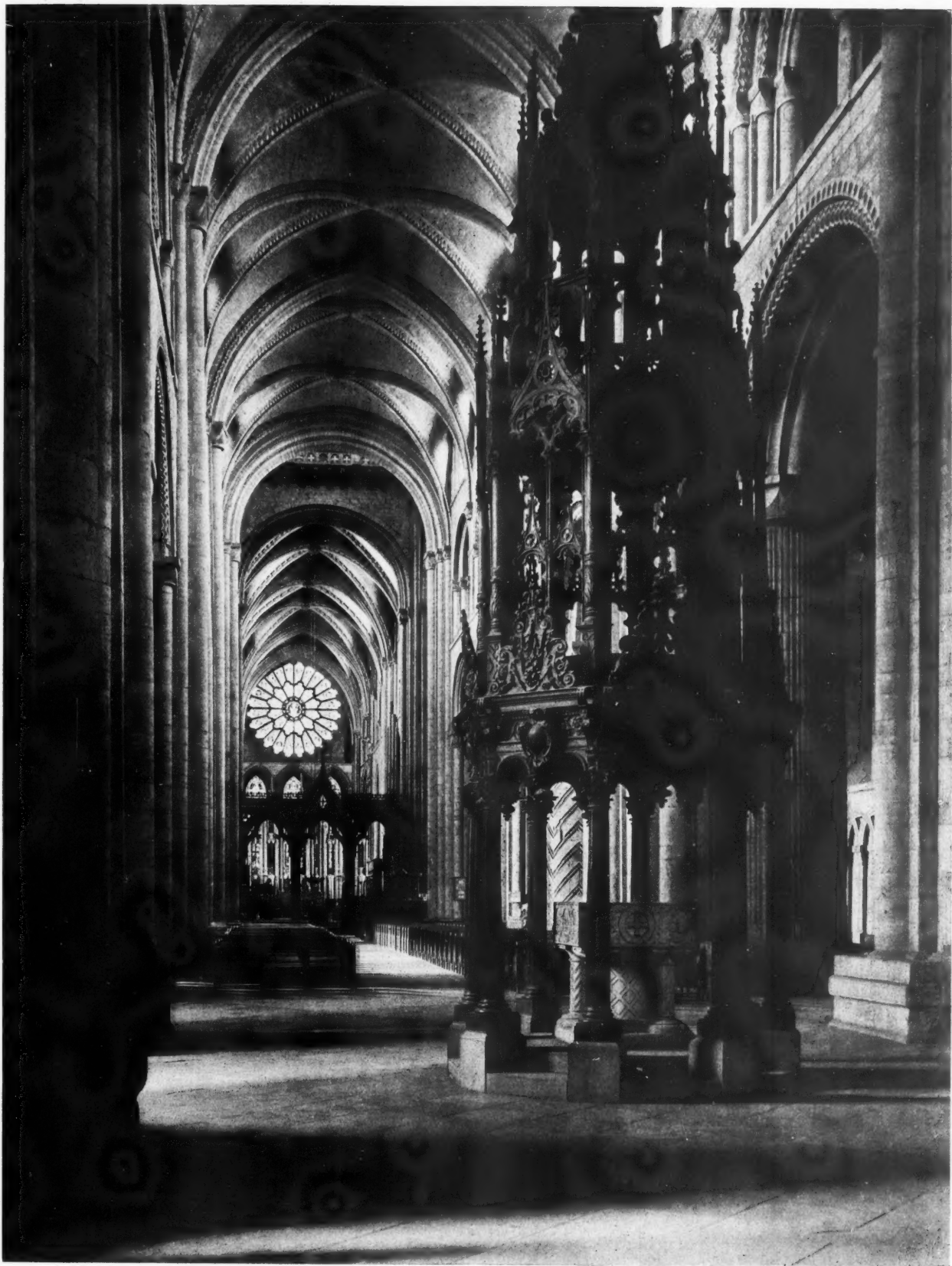
Frederick H. Evans.

FROM THE SOUTH EAST.

Copyright.

looks vaster; it is in design perfectly suited to its position and also to the cold northern colours and the misty northern air; even, by a lucky chance, to the chimneys and smoke of the modern town which, in its squalor, is only a foil to it. The cathedral towers above all that like a mountain above "the mist and hum of that low land." It is, perhaps, the

us, is too narrow for a European fact, for a movement that transformed the building of all Western Europe. But Durham, while it shares this momentum with the naves of Peterborough and Ely and St. Albans, has also a peculiar character of its own; as if the designer of it had found something in the style that perfectly suited his own genius,



Frederick H. Evans.

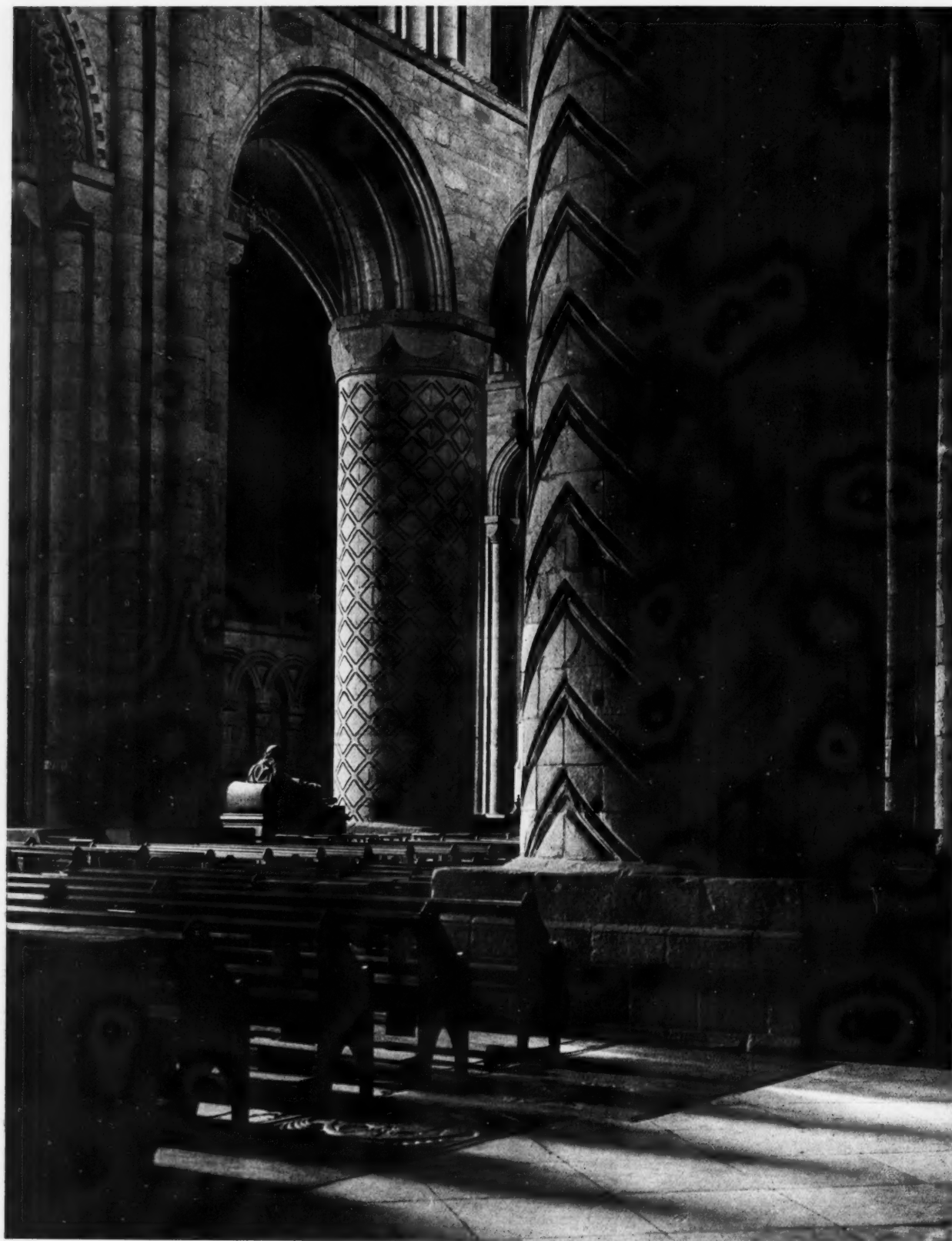
NAVE, LOOKING EAST.

Copyright-

and as if, therefore, he had been able to carry that style further, to express himself in it more consciously than other designers of the time. We are often told, of course, that these great buildings had no designers, that they grew up, as it were, by chance. But that is incredible. There must have been design to produce change; and, if there was design there must have been designers, whether one or more. At Durham, as at Chartres or Bourges, one seems to feel the power of one mind and will turning the structural problem to a problem of expression, and producing, therefore, something more than a fine example of the style, a great individual masterpiece, like a symphony by Beethoven or a statue by Michelangelo.

There is at Durham more diversity than in any other great Romanesque church and yet there is complete unity

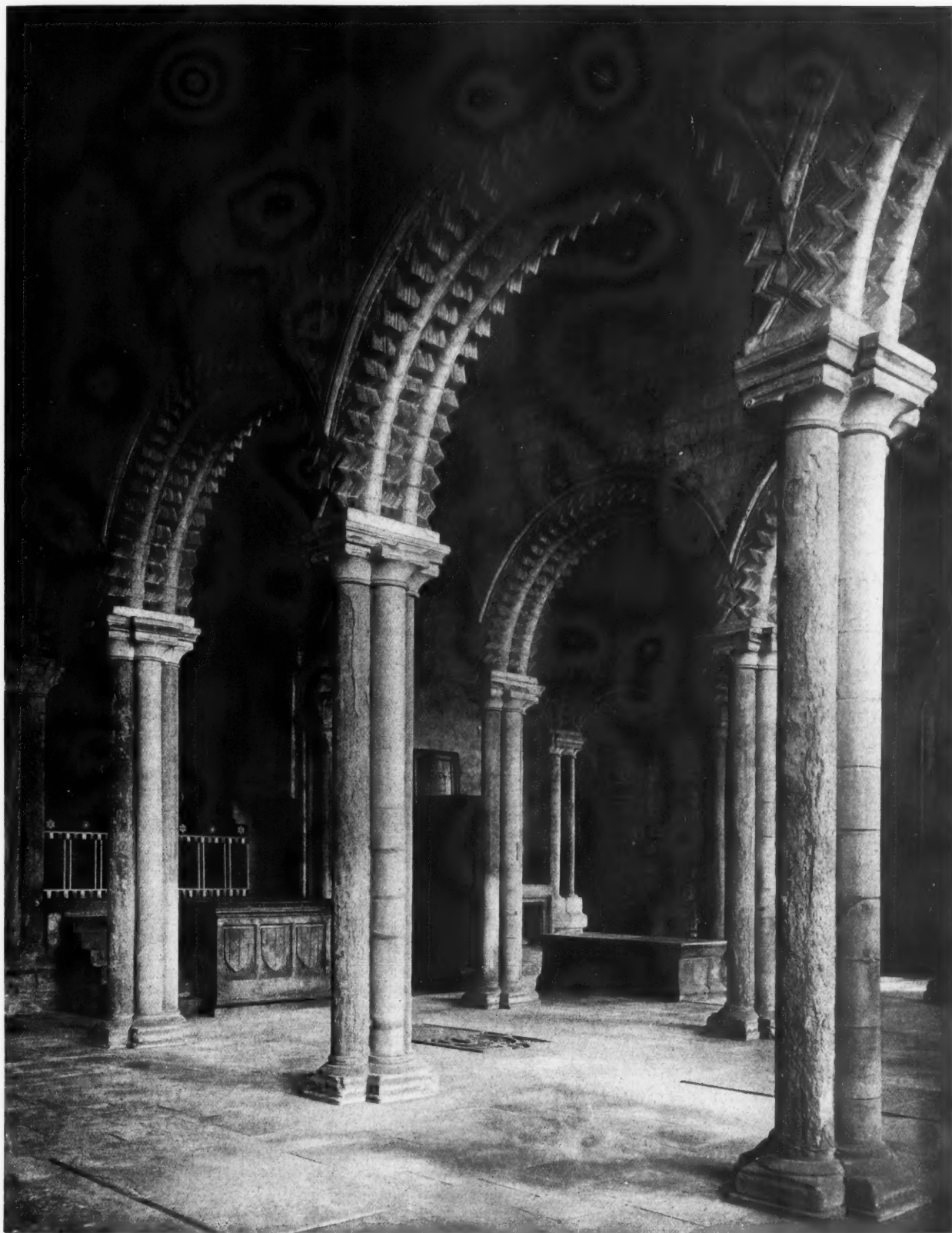
in that diversity. What we are aware of there, more than at Ely or Peterborough, is the majesty of the column. It is not merely an item of the whole structure, nor do we see it as a moment in a movement of continuous change, as part of an effort towards something else, something slimmer and more athletic and more perfectly adapted to the whole design. At Durham the great alternating columns with their varying patterns take the eye and impress the mind by themselves. One feels that the designer delighted in them for their own sake. He was not thinking of the future; he had no idea beyond them of an architecture that others would perfect; he was not looking forward to the Gothic, but resting happy in his own work. And so Durham is to us more completely Romanesque than any other building; for it is the Romanesque content with itself,



Frederick H. Evans.

IN THE NAVE.

Copyright.



Frederick H. Evans.

THE GALILEE CHAPEL.

Copyright.

perfect in its own achievement, like a Greek or Egyptian temple. The Egyptian effect of these great columns has often been noticed; and yet they differ from anything Egyptian, in that they are individual. You look at them one by one; and each one of them expresses its own peculiar power and everlasting tranquillity.

And yet they remain all part of the whole, and that whole is charged with the momentum of the great movement to which it belongs. There is nothing merely picturesque or romantic in the interior of Durham. It is the businesslike work of men who are concerned first of all with their structural problem, who are speaking the common language of their art and are not trying merely to produce a fine building at large. The individual genius which lays this peculiar emphasis on the column is not mere eccen-

tricity or revolt. It has found its happy chance in the general movement and may have been quite unconscious of its own peculiarity. It may have taken a local style of building and turned it to this magnificent use. So for us Durham is Norman, is Romanesque, and we judge other Romanesque buildings by its standard.

It has undergone as much destruction and restoration as most of our cathedrals; yet, by pure luck, it has suffered less than some of them. James Wyatt came here with the object of doing as much harm as he could; yet he did much less harm than at Salisbury. The rose window which he put in at the east end might be much worse than it is; it is not nearly so incongruous with the whole as some better imitations of Gothic designed elsewhere by more conscientious and learned architects. Indeed, the closer the

imitation the more incongruous it always is with living architecture that does not imitate. The rood-screen at Durham is more like Gothic than anything of Wyatt's; but it is also more of an offence. Still, Wyatt tried to do his worst, which was by way of destruction rather than restoration. He had a quite honest dislike of all mediæval building and thought that he could do something much better himself. So he destroyed the old Norman Chapter House and would have destroyed the Galilee Chapel so as to make a carriage drive up to the west front, if he had been allowed to do so. Probably he was not allowed because the Dean and Chapter could not afford so much destruction; they seem to have permitted as much as they could afford.

This Galilee Chapel is called late Norman work. But in general character it has already ceased to be Romanesque. The arches are round and are decorated with zig-zag ornament; but the building has in all its features the slenderness of the coming Early English; it contrasts as sharply as Salisbury with the massiveness of the nave. And yet there is no transitional uncertainty about its beauty. The zig-zag ornament itself is refined with an almost Moorish refinement, and the arch fits beautifully on to the capitals of the four slender shafts below. But there is a peculiar beauty of contrast not often found in Early English work

between the richness of the arches and the bare spaces of wall above them. In this contrast the work is Romanesque and belongs to the South rather than to the North; for it was the weakness of Northern building, which showed itself very quickly in the Gothic and particularly in England, to shun such contrasts. It was from the South, from Italy and from long-past Rome, that the Romanesque got its sense of the nobility of simple masonry and its delight in the contrast between this and the ornament of its own living and growing fancy. But in the North, and particularly in England, the great Southern blocks of masonry were impossible. Out of this impossibility, as Sir Thomas Jackson has clearly shown, grew the Gothic; but the Gothic builders were shy of the bare spaces of wall that they could not build with a Southern grandeur; and ever since we in England have been shy of these spaces. In the Galilee Chapel at Durham they still remain; and that is why it looks to us like a Southern building in the Far North and has a peculiar foreign beauty. It is still European architecture; but very soon our architecture was to become merely English in all its beauty. This contrast between the European and the English is to be seen very clearly in the nave and the eastern transept at Durham; and of that I will speak in another article.

LITERATURE

A BOOK OF THE WEEK

IN *The Coming Democracy*, by Hermann Fernau (Constable), the author shows with the greatest clearness and simplicity the difference between the people of Germany and the rulers of that country. We all felt when President Wilson delivered his famous address on the eve of declaring war with Germany that he was right in differentiating between the military class, of which the Kaiser is the head, and the German people. There are many excellent things in this book, but this is the point *par excellence* which should be apprehended by those who wish to know what the Entente Powers are fighting for. The author of this book, it should be explained, is one of those thinkers who, denied free utterance in their own country, have had to take refuge in Switzerland, where this book was originally published. He has no difficulty in showing, what we all believed before the war, that the majority of his countrymen were pacifically inclined. Bismarck himself held the same view. On a memorable occasion he said "the majority has, as a rule, no inclination for war. War is kindled by the minority or, in Absolute States, by Sovereigns or Cabinets." The problem of the Kaiser when hostilities commenced was to rouse the enthusiasm of this quiet and peace-loving community, and the only way to do it was by getting up an opinion that the war was defensive.

We will not follow the author into his unanswerable analysis of the evidence that the Kaiser had made up his mind to let loose the dogs of war and that he ignored the proposals made both by Austria and Sir Edward Grey for a Conference, and the almost pleading telegram sent to him by the Czar, suggesting that the cause of the quarrel should be carried to The Hague and decided by arbitration. What he did was to issue a twelve hours ultimatum to Russia. Following this came lying reports of raids by Cossacks, bombing by airmen and so on. These first appeared in the Government newspapers and then were sent out as official. The people of Germany were induced to believe that they were fighting against a united effort to invade their country and destroy them as a nation. Someone, cleverer than the others, invented a name for the Entente which was very popular at the beginning of the war. It was "The Land Acquisition Syndicate," and everything has been done to impress and enlarge this view. It seems absurd to us living at a great distance to think that a great and intelligent nation should be so imposed upon, but there can be no reasonable doubt that the enthusiasm for the war which existed during the first year of hostilities in Germany was born of a genuine belief that there had been a conspiracy to crush their country. One cause for that is to be found in the reptile Press which is completely in the hands of the Government and has been consistently fed on lies. The truth never seems to have been adequately presented to them. During the long years of preparation it will be remembered that the Emperor William posed continually as the most peaceable of Sovereigns. Whenever more taxation

was required in order to enlarge the Army and improve its equipment the explanation was that the soldiers were the true peacemakers, and as long as there was this huge Army the Fatherland was safe from attack. German publicists must have known that there was no preparation on a corresponding scale in any other country of the world. Russia had been caught napping by Japan and, when peace followed after the war, proceeded in a way that looks very slow and leisurely now to refashion her Army and build military railways. But when hostilities were declared Russia was practically speaking helpless. Of the Allies, France was in the best position to resist the first onslaught; but although the French statesmen knew that invasion was coming, they had miscalculated the enormous preparations of the Germans, and it was only good luck and the almost miraculous fighting power developed by a feeling of extreme danger that enabled the country to escape defeat. It was at any rate touch-and-go with Paris. Great Britain had shown itself incapable of being persuaded that there was a Teutonic danger. The few people who, like the late Lord Roberts, spoke in warning voices, were not listened to. The pacifists had an influence in those days that extended to Ministerial circles and the utmost preparation was the keeping up of the Fleet to a high standard of efficiency. As far as numbers went the Army deserved the Kaiser's phrase "contemptible." It seems ridiculous now that any hope should have been entertained of stemming the legions of Germany with the first slender Expeditionary Force. It happened, however, to be the best little Army of its kind of any time or any country, and performed wonders. But these things, which seem like ABC to us, were not made plain at all to the German people. Besides, in 1914, the stream of opinion in Germany was carried away by the jubilation of constant victory. It looked for a time as though the Kaiser would be able to accomplish the design he and his officers had pondered for years. To a friend, when he was talking about the enterprise, he said, "I shall pass over Belgium like that," with a wave of his hand. The brave little Belgian Army put a barrier in his way. The English Army put another, and the French have fought during this war with a heroism which shows that the spirit has not abated which at one time made them the foremost Military Power of Europe. But the Kaiser thought to crush all this by sheer weight and force. He failed to do so and Hermann Fernau is one of those who are trying to show that this failure is the greatest blessing that could have happened to his country. If Germany had achieved a complete and sudden victory, absolute Government would have been more strongly established than it ever has been in history.

One or two passages might be quoted to show how the mind of the author works on this theme. First take his description of the war:

The world-war of to-day is actually a struggle between two conceptions of the world. Dynasties, which always go to war with the secret intention of increasing their material and moral power, are, in reality, the puppets

of the world's history. Against their wish and will, they invariably bring about the triumph or defeat of some conception of the world. The victorious nation gains a new or rejuvenated dynasty (with all its reactionary consequences); the vanquished nation gains a new liberty and a fairer human ideal. And this triumph or defeat of a conception of the world is the real meaning of wars and their significance in relation to the progress and culture of mankind.

Further on he proceeds to define the issues in closer detail:

Not that we share the opinion of Bernhardt and Treitschke that war is one of the principal instruments in effecting human civilisation. On the contrary; since war brings reaction to the one and liberty to the other, its results are, from the point of view of world citizenship, to promote strife and disunion and to hinder the progress of civilisation. During the last forty years there have existed, side by side, two powerful States, which, as the result of war, not only developed on diametrically opposite lines, but were in every sense hostile to one another. France and Germany. On the one side, liberty and progress; on the other, reaction and decadence in all the true human values. Sedan brought France liberty, it brought us reaction; and it was inevitable that this contrast should result in the present world-war. Thus the culture gained as a result of war by the vanquished nation (that is to say, by the nation that has been freed from the yoke of its dynasty) is always intensely national and not universal. From the point of view of world citizenship (and we emphatically repudiate any other) war is consequently the enemy of culture.

And this is what a highly educated and thoughtful German thinks would be the sequence of the victory of his own country:

For what would happen if we Germans emerged victorious from this war? Our victory would only mean a strengthening of the dynastic principle of arbitrary power all along the line. Those of us who bewail the political backwardness of our Fatherland must realise that a "German" victory would prolong this backward condition for centuries. And not only Germany, but the whole of Europe would have to suffer the consequences. All the political liberties painfully achieved during two centuries would give way before the omnipotence of the victorious dynasty and only their shadow would remain. Our Polish policy, which even Professor Delbrück severely censured, would be extended to the newly conquered territories and in an even more brutal form. There would be in Europe only as much liberty of thought and of the Press as the German dynasty would allow; and we are well aware how little it does allow.

We have quoted enough to show the strain of the argument, but would ask every one of our readers to study this book for himself. The author is frank and fearless. He has been in close touch with our enemy since the beginning of the war, and he says nothing for which he cannot produce evidence. It is a very illuminating book and deserves the closest attention.

IN THE GARDEN

BLANCHING CELERY AND LEEKS.

THE chief difficulty in earthing up Celery is in keeping the soil from dribbling down into the centre of the plants. If this is not attended to, it may, and usually does, cause the plants to decay in the middle, with most disastrous results. Before commencing to earth up it is necessary to remove all offsets and unsound leaves and to draw together the stems of each plant, securing them by a tie of raffia so that the soil cannot work down into the heart of the plant. Having trimmed and tied up each plant to make a neat specimen without tying too tightly, the process of blanching may proceed. There are different ways of blanching Celery. The oldest and most common method is to draw the soil around

the plants a few inches at a time and to complete the earthing up in three or four stages.

Blanching Celery by Means of Paper Collars.—A newer method is to bandage each plant with a paper collar. At one time this was regarded as an exhibitor's dodge to secure long sticks perfectly clean and straight. There are, however, so many advantages in this method that it is rapidly becoming popular, and it is now adopted in cottage gardens and allotments as well as in the leading kitchen gardens in the country. Nurserymen supply collars made for this purpose which are quickly fastened together; but there is no need to go to the expense of buying specially made collars, as strips of brown paper or old envelopes—in fact, any thick paper about 8 ins. wide—will answer quite as well. The paper is bandaged round the stem and secured in position by two or three ties of raffia. The accompanying illustration from the gardens at Aldenham House, Elstree, shows the method quite clearly; incidentally, it also shows Celery growing between Asparagus—a wise method of intercropping which might be followed in many other gardens. The blanching of the Celery may be completed by the use of the paper collars, but it is generally agreed that, by earthing up in addition, the flavour and crispness of the Celery are improved. The brown paper collars are almost certain to rot in a wet autumn or winter, but not before the clean, healthy growth of the plants has been completed. Early September is a good time for earthing up Celery, and as a rule it takes about six weeks to complete the process of blanching. The cultivation of Celery for market has reached a high standard of excellence in this country, although this may not be said of most other vegetables. Even our Continental friends, who pride themselves on the growing of vegetables for market, are ready to admit that English-grown Celery is hard to beat. Success is largely due to liberal supplies of farmyard manure, copious supplies of moisture with which we are usually so well provided, and care in earthing up to keep the centres clean, than which nothing is more helpful than the paper collars.



CELERY IN PAPER COLLARS.



BLANCHING LEEKS AT ALDENHAM.

Blanching Leeks.—While Celery is one of the best grown vegetables in the country, it is safe to assert that, in Southern Counties at least, the Leek is poorly grown. Its cultivation is less understood than that of almost any other vegetable. Nine people out of ten are under the impression that growth should first be made and the blanching done afterwards. This is impossible; for, after growth is once set, nothing in the world will induce the plant to run to the length required, and the result is a poor, stunted stem disfigured by lateral roots, usually full of grit, and in every way objectionable. The blanching of the Leek must begin immediately the plants are put into their final quarters. There are different ways of blanching successfully, but, whichever method is followed, manure and moisture are quite as essential for Leeks as for Celery.

A Continental Method.—A method of blanching which is followed with much success on the Continent is to plant the Leeks in a hole about 6 ins. deep in well prepared soil. Then fine sand and sifted leaf-soil are lightly dribbled around each plant. This allows room for the development of the stem, which is blanched as it continues to grow. This simple method should commend itself to growers in this country, instead of the laborious practice of planting in trenches in the vain hope that the plants will make long stems before proceeding to earth them up. Large Leeks, it should be remembered, are of superior flavour and in every way preferable to small ones. In this respect the Leek may be an exception to other vegetables.

Leeks at Aldenham.—The illustration on page 213, prepared from a photograph taken a few days ago, shows the special arrangement that is made at Aldenham, where Leeks, like all other vegetables, are grown with marked success. In this case fine soil is drawn up to the blanched portion, and at the same time the paper collar is raised higher to increase the length of the stem. To hold the soil in position, boards are placed on either side of the rows, leaving about a foot space between the boards for a double row of Leeks. In this way the roots are not buried to any great depth, as is the case when the soil is banked up in the usual way. Full credit is due to Mr. Beckett for this mode of blanching, which he has adopted with the greatest success for several years. He was first induced to

adopt this plan owing to the plants when grown in the old-fashioned way being spoilt in appearance as well as quality by emitting roots from the stems instead of at the bottom, where they should be. When Leeks are planted on the level ground, blanching may be completed by means of stiff paper or cardboard collars, but the results are more satisfactory if in addition the soil is drawn around the plants.

H. C.

CORRESPONDENCE.

RASPBERRIES CURLING UP.

SIR,—I am writing to ask you if you could give me some idea what to do with my raspberries. This is the fourth year the leaves and fruit have gone off; they grow well and suddenly the leaves curl and the fruit dries up. I send a sample of the bush attacked; it was quite healthy a month ago.—L. JEBARA.

[We are unable to find evidence of either insect or fungus attack, and we think it very probable that the plants are old and worn out. This is the cause of most failures in the cultivation of raspberries. We advise the planting of new canes in November, choosing single and well-rooted canes for the purpose. They should be planted about 2 ft. apart in rows of from 4 ft. to 6 ft. apart. Prune the young canes to within 1 ft. of the ground after planting and do not anticipate a crop in the first year. Select heavy cropping varieties, such as Superlative or Bountiful and Belle de Fontenay, for autumn fruiting. A heavy dressing of short, well-decayed manure should be applied as a top-dressing to fruiting canes in March.—Ed.]

CORRESPONDENCE

HORSES AT THE FRONT.

[TO THE EDITOR OF "COUNTRY LIFE."]

SIR,—I have been away and have only just seen my COUNTRY LIFE of August 18th. I must deal with your remarks in that article *seriatim*. Let us take the matter of figures first. Yes; figures can be made to prove anything, but only if you juggle with them. Here there is no question of juggling. We know exactly how we stand as regards the numbers of horses on all the fronts, at the depôts and on the sea, etc. All losses, whether due to destruction, deaths, casting, enemy action, etc., are carefully recorded. Therefore we can get at the figures which have been published and which you, among others, appear to think have been carefully doctored to present as soothing a dose as possible to the public. These figures are correct, and very wonderful they are. We know what the annual animal wastage is of large commercial firms in this country, whose horses are regularly and carefully worked, stabled in comfort and fed of the best, and when I tell you that our losses on all fronts compare more than favourably with these (their figures are, I think, 16 per cent. to 17 per cent. and our figures 13 per cent.), I think you will agree with me that this is a very remarkable statement. All the same, it is true. Now we come to the part of your article in which you write: "Never have the horses . . . in the field been so little exposed to active military operations, never have they been so slightly engaged in active fighting, etc." Of course, here you have written without duly considering the matter. Everybody who has been at the front or has had anything to do with the horses in this war must smile at such a statement emanating from one who, at least, should be in a position to know better. You are evidently thinking of cavalry, horse artillery, etc., charging and galloping about and that sort of thing. You can have but little idea of the everlasting work which is called for from gun horses, ammunition column horses, Army Service Corps, regimental transport, Royal Engineers, etc., which form the bulk of the horses at the front. Active fighting, in the sense in which it presents itself to you—No! but actual everyday, unceasing work, in all weathers, under all conditions and over the most appalling ground! Yes! Well, perhaps I have said enough. All I can tell you is that never in any war has the strain on our horses been so great as in the present. Again you give us a little more of your hearsay information when you state: "According to information that has reached me . . . the horses were wholly unsuitable for military purposes, etc." This is a very sweeping assertion, and, unless you have evidence from a very reliable source, I do not consider you should have published such a statement. At the beginning of the war, no doubt a great many unsuitable horses were bought. When I say a great many, these, compared with the numbers now at the front, will form a very small number. However, a certain number of unsuitable horses were undoubtedly bought in the hurry and rush of the first few months of the war. The system which allowed Commanders of Territorial Field Batteries, etc., to go out and buy animals for their units was unsatisfactory, but this was quickly stopped, and now horses for the Army are bought by the finest judges in the country, men that you and I both know very well indeed. These horses are the pick of the market. The ideal heavy draught horse (in which there has been a great deal of mortality) for active service, unfortunately, does not exist. We are using the pick of the medium-sized, short-legged Shire and Clydesdale, but they do not stand the conditions of active service as we should like. What other class of animals are we to use for the heavy guns, etc.? There is nothing better to be got. If you use the best the world produces, what more can you do? I could write reams on this subject, but, unfortunately, I have not got time. You can get no idea of the conditions under which horses have to live in the scene of operations unless you have been out there to see, and in fully recognising that you have at heart the welfare of our horses on active service, I would recommend you to go and see for yourself before making statements that will convey a wrong impression to many readers of your valuable and interesting notes, and lead them to think that our dear old friend, the horse, is still surrounded by knavery and chicanery, and that anything is good enough for him just because he is a horse and not a human-being. You are wrong every time, just as our old friend *Truth* is. He is writing "tosh" of the first

water—all hearsay information, like yours is. However, nobody takes much notice of him, but I do not like to see you writing in that strain, you who should know something about horses. The statistics procurable are absolutely reliable and accurate, and the state of affairs they reveal is quite to my liking. When considering the magnitude of this unprecedented and almost inconceivable campaign, it is favourable beyond words, and the history of the future will prove it so. It is so easy for us to sit in our armchairs at home and criticise on hearsay evidence; but that is not fair to those who are doing their utmost to grapple and overcome all the problems and difficulties of horse supply and horse-care of our armies overseas. I have read your article in COUNTRY LIFE of yesterday's date, in which you publish a letter from an officer overseas. I would like to point out that at no time have I stated that any great mortality was actually due to the mange disease, which your correspondent appears to think. I agree with most of the remarks in his letter, but you must remember that he is only writing of what he sees in his own actual surroundings, which is probably quite a small place compared with the hundreds of miles which comprise our front. He uses the words "enormous losses," but this does not imply that these are excessive. You must remember the enormous number of horses that we are using; but there, I have given you the figures and talked about this in the early part of my letter. I sincerely hope, before you make any further definite statements as to the excessive wastage, you will endeavour to go and see for yourself or get evidence from those who are in a position to give it to you, and who see more than one little part of the lines of our fronts.—F. C. STRATTON (Lieutenant-Colonel, A.V.C., A.D.V.S., Scottish Command).

P.S.—I cannot agree with you that correspondent No. 3 is in agreement with you in regard to your contention that the wastage of horses in France is excessive. He uses the word "enormous," which can in no sense be translated "excessive." I admit they are enormous, but the whole thing (the war) is more than enormous, it is colossal, and the losses in comparison to the numbers employed (which you do not appear to realise) are not excessive. You say you have evidence from very high authority. I have before me as I write a letter from the *highest authority*, and it states "it will be found that the more the figures are exposed, the more will it be found that they form an unprecedented record in their favour over any military undertaking ever known, not by a few points per cent., but by scores of points, and, best of all, things keep on improving every week."—F. C. S.

[TO THE EDITOR OF "COUNTRY LIFE."]

SIR,—As regards your notes on the mortality among horses undergoing military service, may I add another opinion? I agree with a great deal that "No. 3" says, but though I have seen hundreds and hundreds of horses lying dead along the sides of the roads, etc., from exposure, I do not think more than one per cent. of those horses were unclipped. My opinion is that most of the horses died through bad stable management and ill-treatment. A great many of the drivers I have been associated with seemed to take a delight in ill-treating their horses, and especially their mules. But where I noticed the animals suffered most was in the shoeing forges, from ignorant, brutal shoeing smiths and farrier sergeants. I may also say that in February and March this year in France, when our animals were being extra hard worked on awful roads, we were allowed 5 lb. per head of oats for them; in May, June and July, when they were having an easy time, 12 lb. per head. It was always very difficult to get any bran at all. Of course, there were exceptions to all this bad management and ill-usage, but the rule was for the animals to be misunderstood and, on the whole, unkindly treated.—"No. 5."

THE GREYLAG GOOSE IN SALONIKA.

[TO THE EDITOR OF "COUNTRY LIFE."]

SIR,—It may be of interest to you to know that the first three flocks of greylag geese that I have seen in this country (Salonica) was on July 26th; very early arrivals!—J. C. LAIDLAY.

WINTER FOOD FOR WATER BIRDS.

[TO THE EDITOR OF "COUNTRY LIFE."]

SIR,—I keep half a dozen fancy ducks and a few swans, and I am much puzzled how to feed them during the winter. They are, of course, pinioned, and so are unable to procure sufficient food by themselves. I should be much obliged if you or your readers could suggest something to feed them on which is within the laws of the Food Controller.—(Miss) M. LODER.

[If you can get your ducks and swans to come to troughs I should suggest as cheap and practicable at the present moment a mixture of 1 part of a good fish-meal, 2 parts sharps, 3 parts bran (all by weight), mixed into a thick gruel with boiled cabbage and roots and the water they are boiled in. With this as the staple food you can throw down as a second meal a small quantity of such grain as you can get. There should soon be poultry corn (inferior or damaged wheat, etc.) available in some quantities, and maize is not, I believe, prohibited for fowls, but whether it is for the birds you keep I cannot say. You should only give as much food as the birds will pick up at once as sparrows will take all that is left when your back is turned.—Ed.]

ANOTHER "MULE CURIOSITY."

[TO THE EDITOR OF "COUNTRY LIFE."]

SIR,—Some months ago I saw in your paper several letters and a photograph of a mule with white stockings. I thought perhaps the enclosed photograph might be of interest to you; this mule was one in my company of



A MULE WITH FOUR WHITE STOCKINGS.

the Oxford and Bucks Light Infantry. May I add that I have been a reader of your paper for many years and have received it regularly every week, both in France and in the East, since the war started?—C. FITZGERALD (Captain).

A REMARKABLE MONUMENT.

[TO THE EDITOR OF "COUNTRY LIFE."]

SIR,—I think your readers will be interested in the enclosed photograph of a remarkable monument. As will be seen, its size and architecture make it worthy to adorn a London square, but it stands about a mile away from the nearest house, and in the middle of a cornfield between the remote Gloucestershire parishes of Fairford and Quenington. This in itself is surprising, but more surprising is the fact that nothing is known as to its erection or history. A local legend asserts that at this spot the famous painted windows of Fairford Church were buried in the troublous times of the seventeenth



TOMATOES IN THE OPEN HAVE DONE WELL THIS YEAR.

century; but beyond the fact that the windows were removed for safety, nothing is known. The stonework is in an excellent state of preservation, but shows no traces of ever having borne any inscription or even date. It is 60ft. in length, and is built of a hard stone such as is not found anywhere in this district.—DAVID J. SHEPPARD.



WHAT DOES IT COMMEMORATE?

SUGARLESS JAM AND THE SULPHUR PROCESS.

[TO THE EDITOR.]

SIR,—In your issue of July 13th you had an article on sugarless jam, sterilised with burnt flowers of sulphur. Burnt sulphur is used in rooms as a powerful disinfectant after illness. It seems to me, as it is so used, that unless one knows more of the jam process first, it would be unwise to make it by the burnt sulphur process. Jam is usually made in copper pans, and the effect of this with the burnt sulphur fumes might be deadly. Can you, therefore, state on high authority if the jam so made is guaranteed to be absolutely harmless, if made as you direct, and in a copper preserving pan? One is very sceptical nowadays after the "rhubarb leaf" episode.—V. B. M.

[We are able to state on the authority of Mr. Vincent Banks, the chief expert in fruit bottling and jam making to the Food Production Department, that the sulphur process if carried out as directed is absolutely harmless. There is no danger in using sulphur fumes in conjunction with copper pans; but, apart from this, there is no occasion to bring the sulphur fumes in contact with the preserving pans at all. The fumes are merely used to sterilise the jars both before putting in the jam and on the top of the jars before tying down. The fumes may discolour the pulp a little just around the edges, but this soon passes off and is in no way harmful to the pulp; if the fumes should be inhaled, the effect is beneficial rather than otherwise.—Ed.]

TOMATOES OUT OF DOORS.

[TO THE EDITOR OF "COUNTRY LIFE."]

SIR,—It seems a pity that more of those with even a small piece of ground at their disposal do not turn their attention to tomato cultivation in the open. I enclose a photograph of one end of a long row of plants growing along a fence skirting a paddock, the fence being close-boarded and having a south aspect. The seeds from which the plants were raised were taken from one or two selected fruits from the previous season's crop and dried, and the plants were kept under glass till fit for the open. Although the bunches have been thinned out, some of them run to a considerable weight. As the fruit begins to turn it is picked, placed in shallow boxes with felt-covered bottoms, and kept in the dark to ripen. By this method the resulting colour is much darker and richer.—W. L. F. WASTELL.

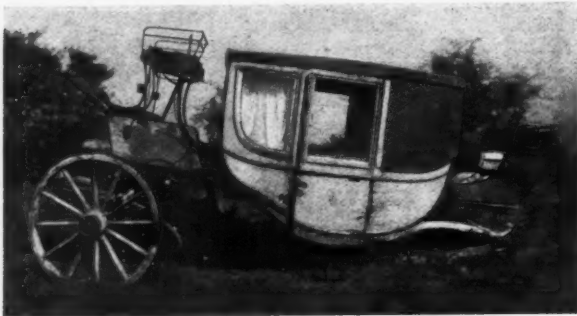
[Those who have taken up the cultivation of tomatoes in the open are now reaping their reward. The season has suited them and the crops are heavy, particularly with the varieties Sunrise, Recruit, Fillbasket and Regina, which are among the best for outdoor cultivation. Surplus fruits should be preserved for winter use. They may be bottled or canned, and they may even be dried, but they must be dried slowly as the fruits are inclined to crack. The fruits should be picked on changing colour, and, as our correspondent points out, they assume a richer and darker colour if placed in the dark. Now that cold nights may be expected, it is safe to assume that many fruits will not ripen sufficiently on the plants. The green fruits, of which there are certain to be large quantities, make excellent chutney, as follows: 2lb. sour

apples, 1lb. brown sugar, 2oz. whole ginger, 2oz. salt, 1½lb. raisins, 1gr. mustard seed and three pints of vinegar. Chop all the ingredients or put them through a mincer and boil in an enamel saucepan for one hour. Then add 3lb. chopped tomatoes and boil again until it thickens. If not hot enough add a dessertspoonful of ground ginger. Fill the jars and tie down. Green tomatoes may also be converted into jam by using 3lb. of sugar to 4lb. of fruit, flavouring with cloves, whole ginger and the grated rind of a lemon. Boil fast for twenty minutes until it will set when placed on a plate in a cool place.—ED.]

A LINK WITH THE PAST.

[TO THE EDITOR OF "COUNTRY LIFE."]

SIR,—I enclose a photograph which I think would interest your readers. It is of the old state coach that is to be seen lying in the field on the side of the main road between Birmingham and Alcester—about seven miles out. Many hunting and motoring through that district during the last twenty-one years have been interested in it, but few know that it was the coach used by



A STATE COACH IN WHICH KING EDWARD RODE.

the Earl of Aylesbury to drive the late King Edward in when he visited Packington Hall as Prince of Wales on November 3rd, 1874—truly a link with the past. Sun and rain have done their work during the past years, and the graceful old coach is fast disappearing. The coat of arms was to be seen until about two years ago; now that has vanished.—E. A. BARKER.

AN IRISH INVENTION.

[TO THE EDITOR OF "COUNTRY LIFE."]

SIR,—An interesting experiment was tried last week in a field of flax belonging to Mr. Nugent of Portaferry, County Down, Ireland. Mr. Frank Barbour of Hilden, Lisburn, has invented a machine to remove the seed from the flax before steeping, and thus avoid the terrible waste of feeding material



A MACHINE FOR SAVING THE SEED OF FLAX.

which is entailed by the usual process. The machine, which is a very portable one, was worked in this experiment by a 3½ h.p. oil engine. Two men ripple the flax, one at each end of the machine, and the boles are thrown on to a winnowing cloth in the centre. Besides the two men rippling, four more are required to divide and re-tie the beats, etc. The experiment was most successful, four acres of flax being passed through the machine in two days, and between two and three tons of seed, which otherwise would have been totally lost, being saved for feeding purposes without in the least injuring the fibre. The machine is shown in the enclosed photograph. It is estimated that the value of the feeding stuff lost in Ulster annually under the old system amounted to three-quarters of a million sterling, so it is easy to appreciate what a great boon this invention will be to the agricultural community.—Z.

"RECLAMATION IN WAR-TIME."

[TO THE EDITOR OF "COUNTRY LIFE."]

SIR,—Would it be possible to form an organisation—a company with shares—to take up some of the waste and in England which no individual will work and reclaim it according to Dr. Edwards' methods? There must be many people who would join in such a venture from patriotic motives and be content with a small percentage on their capital.—(Miss) C. M. RIVINGTON.

THE "HARVEST ACROBATS' BIG BROTHER.

[TO THE EDITOR.]

SIR,—In your last issue you published a very charming little article under the title of "Harvest Acrobats," dealing with the attractive tricks and manners of the little harvest mouse. I am sending with this a photograph of his "bigger brother," the field mouse, and his home, which, lodged in the branches of a hawthorn bush, might by the uninitiated be mistaken for a bird's nest.—OBSERVER.



CATERPILLAR TO NAME.

[TO THE EDITOR.]

SIR,—I should be glad if you would kindly name the enclosed caterpillar. I am sending plenty of plum leaves with him, not only to keep him safe, but also for him to eat, as (though his food is, in his natural state, a small-leaved, low-growing plant which grows on the hills here) he will readily eat plum leaves and appears to flourish exceedingly on this diet.—CECIL M. ARCHDALL.

[It is a variety of the fox moth caterpillar *Bombyx Rubi*, which usually remains in chrysalis until May. The moth is a shade of fox brown in colour, hence its popular name. The caterpillar usually feeds on some form of rubus or bramble—it was not feeding on the plum leaves with which it was sent.—ED.]

WANTED—A BOOK ON THE BIRDS OF NORTHERN TURKEY.

[TO THE EDITOR OF "COUNTRY LIFE."]

SIR,—Will you kindly inform me whether there is a book on wild birds which would be suitable for identifying the birds indigenous to the northern part of Turkey in Asia (Province of Anatolia)? Some of the species of birds found there are similar to our British birds (such as goldfinches), but no doubt there are also many species which are not found in these islands. What is wanted is a book with coloured illustrations so that the birds could be recognised and named. I may mention that I am making this enquiry on behalf of a British prisoner of war in Anatolia. He is a great bird lover and occasionally he has opportunities of seeing the wild birds of the country.—C. W. N.

A DEODAR HANGING FROM A STONE.

[TO THE EDITOR OF "COUNTRY LIFE."]

SIR,—I am sending you a photograph of a curious old deodar tree growing in one of the forests of the Beas Valley. As will be seen from the photograph, the tree is of great age, and is hanging suspended over a precipice. Its whole weight is carried by the roots, which have fastened themselves to the top of the stone. The deodar is the Himalayan cedar, and is closely allied to the cedar of Lebanon. It is one of the most important timber trees of India, and its wood is largely used for railway sleepers, building and construction of all kinds.—H. L. WRIGHT, Mandi State, Punjab, India.



SUSPENDED OVER A PRECIPICE.